

Sequence Listing

- <110> Ashkenazi, Avi J.
Baker, Kevin P.
Botstein, David
Desnoyers, Luc
Eaton, Dan L.
Ferrara, Napoleone
Fong, Sherman
Gerber, Hanspeter
Gerritsen, Mary E.
Goddard, Audrey
Godowski, Paul J.
Grimaldi, J. Christopher
Gurney, Austin L.
Kljasin, Ivar J.
Napier, Mary A.
Pan, James
Paoni, Nicholas F.
Roy, Margaret Ann
Stewart, Timothy A.
Tumas, Daniel
Watanabe, Colin K.
Williams, P. Mickey
Wood, William I.
Zhang, Zemin
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Trp	Ile	Cys	Ile	Val	Ile	Thr	Gly	Leu	Ala	Met	Asp	Met	Gln	Leu	
				110					115					120	
Leu	Met	Ile	Pro	Leu	Ile	Met	Ser	Val	Leu	Tyr	Val	Trp	Ala	Gln	
				125					130					135	
Leu	Asn	Arg	Asp	Met	Ile	Val	Ser	Phe	Trp	Phe	Gly	Thr	Arg	Phe	
				140					145					150	
Lys	Ala	Cys	Tyr	Leu	Pro	Trp	Val	Ile	Leu	Gly	Phe	Asn	Tyr	Ile	
				155					160					165	
Ile	Gly	Gly	Ser	Val	Ile	Asn	Glu	Leu	Ile	Gly	Asn	Leu	Val	Gly	
				170					175					180	
His	Leu	Tyr	Phe	Phe	Leu	Met	Phe	Arg	Tyr	Pro	Met	Asp	Leu	Gly	
				185					190					195	
Gly	Arg	Asn	Phe	Leu	Ser	Thr	Pro	Gln	Phe	Leu	Tyr	Arg	Trp	Leu	
				200					205					210	
Pro	Ser	Arg	Arg	Gly	Gly	Val	Ser	Gly	Phe	Gly	Val	Pro	Pro	Ala	
				215					220					225	
Ser	Met	Arg	Arg	Ala	Ala	Asp	Gln	Asn	Gly	Gly	Gly	Gly	Arg	His	
				230					235					240	
Asn	Trp	Gly	Gln	Gly	Phe	Arg	Leu	Gly	Asp	Gln					
				245					250						

<210> 7
 <211> 1373
 <212> DNA
 <213> Homo sapiens

<400> 7
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 gtccggcggt ctggcctagg gatcttcccc gttgccctt tggggcgga 200

tggctgcgga agaagaagac gaggtggagt gggtagtgga gagcatcgcg 250
 gggttcctgc gaggcccaga ctgggccatc cccatcttgg actttgtgga 300
 acagaaatgt gaagttaact gcaaaggagg gcatgtgata actccaggaa 350
 gccagagcc ggtgattttg gtggcctgtg ttccccttgt ttttgatgat 400
 gaagaagaaa gcaaattgac ctatacagag attcatcagg aatacaaaga 450
 actagttaga aagctgttag aaggttacct caaagaaatt ggaattaatg 500
 aagatcaatt tcaagaagca tgcacttctc ctcttgcaaa gaccataca 550
 tcacaggcca ttttgcaacc tgtgttgga gcagaagatt ttactatctt 600
 taaagcaatg atgggccaga aaaacattga aatgcagctg caagccattc 650
 gaataattca agagagaaat ggtgtattac ctgactgctt aaccgatggc 700
 tctgatgtgg tcagtgcact tgaacacgaa gagatgaaaa tcctgagga 750
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 ggaaaaaaca gttatcagag gctaaaacag aagagcccac agtgcattcc 850
 agtgaagctg caataatgaa taattcccaa ggggatgggtg aacattttgc 900
 acacccaccc tcagaagtta aaatgcattt tgctaatacag tcaatagaac 950
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 ggctgaaga ttcttggtt agagcatgag agcattgaag gaccaatagc 1050
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 aaacagatac aaaatatgga gcagaaagga aaaccactg gggaggtaga 1200
 ggaaatgaca gagaaaccag aaatgacagc agaggagaag caaacattac 1250
 taaagaggag attgcttgca gagaaactca aagaagaagt tattaataag 1300
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<210> 8

<211> 367

<212> PRT

<213> Homo sapiens

<400> 8

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Ile Ala Gly Phe Leu Arg Gly Pro Asp Trp Ser Ile Pro Ile Leu

				20					25					30
Asp	Phe	Val	Glu	Gln 35	Lys	Cys	Glu	Val	Asn 40	Cys	Lys	Gly	Gly	His 45
Val	Ile	Thr	Pro	Gly 50	Ser	Pro	Glu	Pro	Val 55	Ile	Leu	Val	Ala	Cys 60
Val	Pro	Leu	Val	Phe 65	Asp	Asp	Glu	Glu	Glu 70	Ser	Lys	Leu	Thr	Tyr 75
Thr	Glu	Ile	His	Gln 80	Glu	Tyr	Lys	Glu	Leu 85	Val	Glu	Lys	Leu	Leu 90
Glu	Gly	Tyr	Leu	Lys 95	Glu	Ile	Gly	Ile	Asn 100	Glu	Asp	Gln	Phe	Gln 105
Glu	Ala	Cys	Thr	Ser 110	Pro	Leu	Ala	Lys	Thr 115	His	Thr	Ser	Gln	Ala 120
Ile	Leu	Gln	Pro	Val 125	Leu	Ala	Ala	Glu	Asp 130	Phe	Thr	Ile	Phe	Lys 135
Ala	Met	Met	Val	Gln 140	Lys	Asn	Ile	Glu	Met 145	Gln	Leu	Gln	Ala	Ile 150
Arg	Ile	Ile	Gln	Glu 155	Arg	Asn	Gly	Val	Leu 160	Pro	Asp	Cys	Leu	Thr 165
Asp	Gly	Ser	Asp	Val 170	Val	Ser	Asp	Leu	Glu 175	His	Glu	Glu	Met	Lys 180
Ile	Leu	Arg	Glu	Val 185	Leu	Arg	Lys	Ser	Lys 190	Glu	Glu	Tyr	Asp	Gln 195
Glu	Glu	Glu	Arg	Lys 200	Arg	Lys	Lys	Gln	Leu 205	Ser	Glu	Ala	Lys	Thr 210
Glu	Glu	Pro	Thr	Val 215	His	Ser	Ser	Glu	Ala 220	Ala	Ile	Met	Asn	Asn 225
Ser	Gln	Gly	Asp	Gly 230	Glu	His	Phe	Ala	His 235	Pro	Pro	Ser	Glu	Val 240
Lys	Met	His	Phe	Ala 245	Asn	Gln	Ser	Ile	Glu 250	Pro	Leu	Gly	Arg	Lys 255
Val	Glu	Arg	Ser	Glu 260	Thr	Ser	Ser	Leu	Pro 265	Gln	Lys	Gly	Leu	Lys 270
Ile	Pro	Gly	Leu	Glu 275	His	Ala	Ser	Ile	Glu 280	Gly	Pro	Ile	Ala	Asn 285
Leu	Ser	Val	Leu	Gly 290	Thr	Glu	Glu	Leu	Arg 295	Gln	Arg	Glu	His	Tyr 300
Leu	Lys	Gln	Lys	Arg 305	Asp	Lys	Leu	Met	Ser 310	Met	Arg	Lys	Asp	Met 315

Arg	Thr	Lys	Gln	Ile	Gln	Asn	Met	Glu	Gln	Lys	Gly	Lys	Pro	Thr
				320					325					330
Gly	Glu	Val	Glu	Glu	Met	Thr	Glu	Lys	Pro	Glu	Met	Thr	Ala	Glu
				335					340					345
Glu	Lys	Gln	Thr	Leu	Leu	Lys	Arg	Arg	Leu	Leu	Ala	Glu	Lys	Leu
				350					355					360
Lys	Glu	Glu	Val	Ile	Asn	Lys								
				365										

<210> 9
 <211> 418
 <212> DNA
 <213> Homo sapiens

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 tgcacttctc ctcttgcaaa gacccataca tcacaggcca tttttgcaac 200
 ctgtgttggc agcagaagat tttactatct ttaaagcaat gatggtccag 250
 aaaaacattg aaatgcagct gcaagccatt cgaataattc aagagagaaa 300
 tgggtgatta cctgactgct taaccgatgg ctctgatgtg gtcagtgacc 350
 ttgaacacga agagatgaaa atcctgaggg aagttcttag aaaatcaaaa 400
 gaggaatatg accaggaa 418

<210> 10
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 10
 ttgacctata cagagattca tc 22

<210> 11
 <211> 23
 <212> DNA
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<220>
 <223> Synthetic oligonucleotide probe

<400> 11
 ctaagaactt ccctcaggat ttt 23

<210> 12
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 12
atgaagatca atttcaagaa gcatgcactt ctctctcttgc 40

<210> 13
<211> 2886
<212> DNA
<213> Homo sapiens

<400> 13
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tactacgggg ctagacagtt actgtctcag ctctaggatg tgcgtttcttc 150
cactagaagc tcttctgagg gaggttaatta aaaaacagtg gaatggaaaa 200
acagtgtgt agtcacctg taatatgctc cttgtcaaca atgtatacat 250
tcctgctagg tgccatattc attgctttaa gctcaagtcg catcttacta 300
gtgaagtatt ctgccaatga agaaaacaag tatgattatc ttccaactac 350
tgtgaatgtg tgctcagaac tgggtgaagct agttttctgt gtgcttgtgt 400
cattctgtgt tataaagaaa gatcatcaaa gtagaaattt gaaatatgct 450
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ttatttcctg gataacttga ttgtcttcta tgtcctgtcc tatcttcaac 550
cagccatggc tgttatcttc tcaaatttta gcattataac aacagctctt 600
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ctttacagca caacttggca ggacgtggat ttcatcacga tgcctttttc 750
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aactctattt ctttggcatt ctgtttaatg ggctgactct gggccttcag 1050

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 ctttctaaaa acgttggttg aaggacctaa atacctggcc ataccataga 2000
 tttgggatga tgtagtctgt gctaaatatt ttgctgaaga agcagtttct 2050
 cagacacaac atctcagaat tttaattttt agaaattcat gggaaattgg 2100
 atttttgtaa taatcttttg atgttttaaa cattggttcc ctagtcacca 2150
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 agctgtgact attgtatatc tttccaagag ttgaaatgct ggcttcagaa 2350
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acagtgtctac ttcacactta aaagtgcacg gtattttttca tggatatttg 2550
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ttaaaaatta gcaaacaaaa gtgacttgct caggggtcatg cagctgggtg 2650
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catactgtaa atatgagctt tatgggtgtca ttctcagaaa cttatacatt 2750
tctgctctcc tttctcctaa gtttcatgca gatgaatata aggtaatata 2800
ctattatata attcatttgt gatatccaca ataatatgac tggcaagaat 2850
tgggtggaaat ttgtaattaa aataattatt aaacct 2886

<210> 14

<211> 424

<212> PRT

<213> Homo sapiens

<400> 14

Met	Glu	Lys	Gln	Cys	Cys	Ser	His	Pro	Val	Ile	Cys	Ser	Leu	Ser	1	5	10	15
Thr	Met	Tyr	Thr	Phe	Leu	Leu	Gly	Ala	Ile	Phe	Ile	Ala	Leu	Ser	20	25	30	
Ser	Ser	Arg	Ile	Leu	Leu	Val	Lys	Tyr	Ser	Ala	Asn	Glu	Glu	Asn	35	40	45	
Lys	Tyr	Asp	Tyr	Leu	Pro	Thr	Thr	Val	Asn	Val	Cys	Ser	Glu	Leu	50	55	60	
Val	Lys	Leu	Val	Phe	Cys	Val	Leu	Val	Ser	Phe	Cys	Val	Ile	Lys	65	70	75	
Lys	Asp	His	Gln	Ser	Arg	Asn	Leu	Lys	Tyr	Ala	Ser	Trp	Lys	Glu	80	85	90	
Phe	Ser	Asp	Phe	Met	Lys	Trp	Ser	Ile	Pro	Ala	Phe	Leu	Tyr	Phe	95	100	105	
Leu	Asp	Asn	Leu	Ile	Val	Phe	Tyr	Val	Leu	Ser	Tyr	Leu	Gln	Pro	110	115	120	
Ala	Met	Ala	Val	Ile	Phe	Ser	Asn	Phe	Ser	Ile	Ile	Thr	Thr	Ala	125	130	135	
Leu	Leu	Phe	Arg	Ile	Val	Leu	Lys	Arg	Arg	Leu	Asn	Trp	Ile	Gln	140	145	150	
Trp	Ala	Ser	Leu	Leu	Thr	Leu	Phe	Leu	Ser	Ile	Val	Ala	Leu	Thr	155	160	165	
Ala	Gly	Thr	Lys	Thr	Leu	Gln	His	Asn	Leu	Ala	Gly	Arg	Gly	Phe	170	175	180	

His	His	Asp	Ala	Phe	Phe	Ser	Pro	Ser	Asn	Ser	Cys	Leu	Leu	Phe	
				185					190					195	
Arg	Ser	Glu	Cys	Pro	Arg	Lys	Asp	Asn	Cys	Thr	Ala	Lys	Glu	Trp	
				200					205					210	
Thr	Phe	Pro	Glu	Ala	Lys	Trp	Asn	Thr	Thr	Ala	Arg	Val	Phe	Ser	
				215					220					225	
His	Ile	Arg	Leu	Gly	Met	Gly	His	Val	Leu	Ile	Ile	Val	Gln	Cys	
				230					235					240	
Phe	Ile	Ser	Ser	Met	Ala	Asn	Ile	Tyr	Asn	Glu	Lys	Ile	Leu	Lys	
				245					250					255	
Glu	Gly	Asn	Gln	Leu	Thr	Glu	Ser	Ile	Phe	Ile	Gln	Asn	Ser	Lys	
				260					265					270	
Leu	Tyr	Phe	Phe	Gly	Ile	Leu	Phe	Asn	Gly	Leu	Thr	Leu	Gly	Leu	
				275					280					285	
Gln	Arg	Ser	Asn	Arg	Asp	Gln	Ile	Lys	Asn	Cys	Gly	Phe	Phe	Tyr	
				290					295					300	
Gly	His	Ser	Ala	Phe	Ser	Val	Ala	Leu	Ile	Phe	Val	Thr	Ala	Phe	
				305					310					315	
Gln	Gly	Leu	Ser	Val	Ala	Phe	Ile	Leu	Lys	Phe	Leu	Asp	Asn	Met	
				320					325					330	
Phe	His	Val	Leu	Met	Ala	Gln	Val	Thr	Thr	Val	Ile	Ile	Thr	Thr	
				335					340					345	
Val	Ser	Val	Leu	Val	Phe	Asp	Phe	Arg	Pro	Ser	Leu	Glu	Phe	Phe	
				350					355					360	
Leu	Glu	Ala	Pro	Ser	Val	Leu	Leu	Ser	Ile	Phe	Ile	Tyr	Asn	Ala	
				365					370					375	
Ser	Lys	Pro	Gln	Val	Pro	Glu	Tyr	Ala	Pro	Arg	Gln	Glu	Arg	Ile	
				380					385					390	
Arg	Asp	Leu	Ser	Gly	Asn	Leu	Trp	Glu	Arg	Ser	Ser	Gly	Asp	Gly	
				395					400					405	
Glu	Glu	Leu	Glu	Arg	Leu	Thr	Lys	Pro	Lys	Ser	Asp	Glu	Ser	Asp	
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Glu	Asp	Thr	Phe												

<210> 15

<211> 755

<212> DNA

<213> Homo sapiens

<400> 15

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 ctatacctac tgtagcttct ccacgtatgg accctaaagg ctactgctgc 150
 tactacgggg ctagacagtt actgtctcag ctctaggatg tgcgttcttc 200
 cactagaagc tcttctgagg gaggttaatta aaaaacagtg gaatggaaaa 250
 acagtgctgt agtcacctg taatatgctc cttgtcaaca atgtatacat 300
 tcctgctagg tgccatattc attgctttaa gctcaagtcg catcttacta 350
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 tgtgaatgtg tgctcagaac tgggtgaagct agttttctgt gtgcttgtgt 450
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 ttatttcttg gataacttga ttgtcttcta tgtcctgtcc tatcttcaac 600
 cagccatggc tggtatcttc tcaaatttta gcattataac aacagctctt 650
 ctattcagga tagtgctgaa gaggcgtcta aactggatcc agtgggcttc 700
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<210> 16

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 16

ctatacctac tgtagcttct 20

<210> 17

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 17

tcagagaatt ccttccagga 20

<210> 18

<211> 40

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 18
acagtgtgt agtcatcctg taatatgctc cttgtcaaca 40

<210> 19

<211> 2142

<212> DNA

<213> Homo sapiens

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gcggcctgcg gggcagagga gcatccccgc taccaggtcc caagcggcgt 150
ggcccgcggg tcatggccaa aggagaaggc gccgagagcg gctccgcggc 200
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 ccagcagctc tggctgctca gaaacagact ccacagagct ggctagcatc 1750
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 gtggggccaa gccctggggc tgccactgtg aatatgccaa ggactgatcg 2000
 ggctagccc ggaacactaa tgtagaaacc ttttttttac agagcctaata 2050
 taataactta atgactgtgt acatagcaat gtgtgtgtat gtatatgtct 2100
 gtgagctatt aatgttatta attttcataa aagctggaaa gc 2142

<210> 20
 <211> 458
 <212> PRT
 <213> Homo sapiens

<400> 20
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 Trp Ala Glu Pro Gly Met Pro Ser Gln Thr Pro Trp Trp Ala Ser
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 Ala Ser Ala Asn Pro Pro Gly Pro Ala Trp Val Ala Leu Cys Pro
 35 40 45
 Gly Ser Ser Ser Pro Arg Pro Trp Pro Ser Leu Pro Thr Ser Ser
 50 55 60
 Ser Gly Ser Cys Pro Thr Ser His Thr Ala Arg Pro Ile Gly Thr
 65 70 75

Cys	Phe	Ser	Ile	Ala	Ser	Leu	Lys	Gln	Trp	Ser	Arg	Val	Ser	Met	
				80					85					90	
Phe	Pro	Thr	Arg	Leu	Ser	Pro	Cys	Ser	Ser	Ala	Thr	Glu	Gln	Thr	
				95					100					105	
Glu	Arg	Asp	Ser	Ala	Thr	Ala	Tyr	Arg	Met	Thr	Val	Glu	Val	Leu	
				110					115					120	
Gly	Thr	Val	Leu	Gly	Thr	Ala	Ile	Gln	Gly	Gln	Ile	Val	Gly	Gln	
				125					130					135	
Ala	Asp	Thr	Pro	Cys	Phe	Gln	Asp	Phe	Asn	Ser	Ser	Thr	Val	Ala	
				140					145					150	
Ser	Gln	Ser	Ala	Asn	His	Thr	His	Gly	Thr	Thr	Ser	His	Arg	Glu	
				155					160					165	
Thr	Gln	Lys	Ala	Tyr	Leu	Leu	Ala	Ala	Gly	Val	Ile	Val	Cys	Ile	
				170					175					180	
Tyr	Ile	Ile	Cys	Ala	Val	Ile	Leu	Ile	Leu	Gly	Val	Arg	Glu	Gln	
				185					190					195	
Arg	Glu	Pro	Tyr	Glu	Ala	Gln	Gln	Ser	Glu	Pro	Ile	Ala	Tyr	Phe	
				200					205					210	
Arg	Gly	Leu	Arg	Leu	Val	Met	Ser	His	Gly	Pro	Tyr	Ile	Lys	Leu	
				215					220					225	
Ile	Thr	Gly	Phe	Leu	Phe	Thr	Ser	Leu	Ala	Phe	Met	Leu	Val	Glu	
				230					235					240	
Gly	Asn	Phe	Val	Leu	Phe	Cys	Thr	Tyr	Thr	Leu	Gly	Phe	Arg	Asn	
				245					250					255	
Glu	Phe	Gln	Asn	Leu	Leu	Leu	Ala	Ile	Met	Leu	Ser	Ala	Thr	Leu	
				260					265					270	
Thr	Ile	Pro	Ile	Trp	Gln	Trp	Phe	Leu	Thr	Arg	Phe	Gly	Lys	Lys	
				275					280					285	
Thr	Ala	Val	Tyr	Val	Gly	Ile	Ser	Ser	Ala	Val	Pro	Phe	Leu	Ile	
				290					295					300	
Leu	Val	Ala	Leu	Met	Glu	Ser	Asn	Leu	Ile	Ile	Thr	Tyr	Ala	Val	
				305					310					315	
Ala	Val	Ala	Ala	Gly	Ile	Ser	Val	Ala	Ala	Ala	Phe	Leu	Leu	Pro	
				320					325					330	
Trp	Ser	Met	Leu	Pro	Asp	Val	Ile	Asp	Asp	Phe	His	Leu	Lys	Gln	
				335					340					345	
Pro	His	Phe	His	Gly	Thr	Glu	Pro	Ile	Phe	Phe	Ser	Phe	Tyr	Val	
				350					355					360	
Phe	Phe	Thr	Lys	Phe	Ala	Ser	Gly	Val	Ser	Leu	Gly	Ile	Ser	Thr	

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cttccttcag cccttgtaat ttggacatct gctgctttca tattttcata 200
cattactgca gtaacactcc accatataga cccggcttta cttatatca 250
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gataatcagg aaacatgaaa gaagccattt gatagattat tctaaaggat 1100
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gaaaataaag tcaaaagact atg 1173

<210> 23
<211> 266
<212> PRT
<213> Homo sapiens

<400> 23
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Val Ile Trp Thr Ser Ala Ala Phe Ile Phe Ser Tyr Ile Thr Ala
20 25 30

Val	Thr	Leu	His	His	Ile	Asp	Pro	Ala	Leu	Pro	Tyr	Ile	Ser	Asp		35	40	45
Thr	Gly	Thr	Val	Ala	Pro	Glu	Lys	Cys	Leu	Phe	Gly	Ala	Met	Leu		50	55	60
Asn	Ile	Ala	Ala	Val	Leu	Cys	Ile	Ala	Thr	Ile	Tyr	Val	Arg	Tyr		65	70	75
Lys	Gln	Val	His	Ala	Leu	Ser	Pro	Glu	Glu	Asn	Val	Ile	Ile	Lys		80	85	90
Leu	Asn	Lys	Ala	Gly	Leu	Val	Leu	Gly	Ile	Leu	Ser	Cys	Leu	Gly		95	100	105
Leu	Ser	Ile	Val	Ala	Asn	Phe	Gln	Lys	Thr	Thr	Leu	Phe	Ala	Ala		110	115	120
His	Val	Ser	Gly	Ala	Val	Leu	Thr	Phe	Gly	Met	Gly	Ser	Leu	Tyr		125	130	135
Met	Phe	Val	Gln	Thr	Ile	Leu	Ser	Tyr	Gln	Met	Gln	Pro	Lys	Ile		140	145	150
His	Gly	Lys	Gln	Val	Phe	Trp	Ile	Arg	Leu	Leu	Leu	Val	Ile	Trp		155	160	165
Cys	Gly	Val	Ser	Ala	Leu	Ser	Met	Leu	Thr	Cys	Ser	Ser	Val	Leu		170	175	180
His	Ser	Gly	Asn	Phe	Gly	Thr	Asp	Leu	Glu	Gln	Lys	Leu	His	Trp		185	190	195
Asn	Pro	Glu	Asp	Lys	Gly	Tyr	Val	Leu	His	Met	Ile	Thr	Thr	Ala		200	205	210
Ala	Glu	Trp	Ser	Met	Ser	Phe	Ser	Phe	Phe	Gly	Phe	Phe	Leu	Thr		215	220	225
Tyr	Ile	Arg	Asp	Phe	Gln	Lys	Ile	Ser	Leu	Arg	Val	Glu	Ala	Asn		230	235	240
Leu	His	Gly	Leu	Thr	Leu	Tyr	Asp	Thr	Ala	Pro	Cys	Pro	Ile	Asn		245	250	255
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<210> 24
 <211> 485
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 14, 484
 <223> unknown base

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 gagcggagat cctcaaacgg cctagtgtt cgcgcttccg gagaaaatca 150
 gcggtctaata taattcctct ggtttggtga agcagttacc aagaatcttc 200
 aaccctttcc cacaaaagct aattgagtag acgttcctgt tgagtacacg 250
 ttctgttgga ttacaaaag gtgcaggtat gagcaggtct gaagactaac 300
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 gcaaggctc agtttccttc cttcagccct tgtaatttgg acatctgctg 400
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 gctttacctt atatcagtga cactggtaca gtanc 485

<210> 25
 <211> 40
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 25
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<210> 26
 <211> 46
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 26
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<210> 27
 <211> 1399
 <212> DNA
 <213> Homo sapiens

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 ctgccccgcg ggccgggggtg cggagccgac atgcgcccgc ttctcggcct 100
 ccttctgggtc ttgcgccggt gcaccttcgc cttgtacttg ctgtcgacgc 150
 gactgccccg cgggcggaga ctgggctcca ccgaggaggc tggaggcagg 200
 tcgctgtggt tcccctccga cctggcagag ctgcgggagc tctctgaggt 250

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 ctgaatgttt tagctgggtgc cttgtttggg ccatggctgg ggcttctgct 400
 gtgctgtgtg ttgacctcgg tgggtgccac atgctgctac ctgctctcca 450
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<210> 28
 <211> 264
 <212> PRT
 <213> Homo sapiens

<400> 28
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 Phe Ala Leu Tyr Leu Leu Ser Thr Arg Leu Pro Arg Gly Arg Arg
 20 25 30

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				35					40						45
Ser	Asp	Leu	Ala	Glu	Leu	Arg	Glu	Leu	Ser	Glu	Val	Leu	Arg	Glu	
				50					55						60
Tyr	Arg	Lys	Glu	His	Gln	Ala	Tyr	Val	Phe	Leu	Leu	Phe	Cys	Gly	
				65					70						75
Ala	Tyr	Leu	Tyr	Lys	Gln	Gly	Phe	Ala	Ile	Pro	Gly	Ser	Ser	Phe	
				80					85						90
Leu	Asn	Val	Leu	Ala	Gly	Ala	Leu	Phe	Gly	Pro	Trp	Leu	Gly	Leu	
				95					100						105
Leu	Leu	Cys	Cys	Val	Leu	Thr	Ser	Val	Gly	Ala	Thr	Cys	Cys	Tyr	
				110					115						120
Leu	Leu	Ser	Ser	Ile	Phe	Gly	Lys	Gln	Leu	Val	Val	Ser	Tyr	Phe	
				125					130						135
Pro	Asp	Lys	Val	Ala	Leu	Leu	Gln	Arg	Lys	Val	Glu	Glu	Asn	Arg	
				140					145						150
Asn	Ser	Leu	Phe	Phe	Phe	Leu	Leu	Phe	Leu	Arg	Leu	Phe	Pro	Met	
				155					160						165
Thr	Pro	Asn	Trp	Phe	Leu	Asn	Leu	Ser	Ala	Pro	Ile	Leu	Asn	Ile	
				170					175						180
Pro	Ile	Val	Gln	Phe	Phe	Phe	Ser	Val	Leu	Ile	Gly	Leu	Ile	Pro	
				185					190						195
Tyr	Asn	Phe	Ile	Cys	Val	Gln	Thr	Gly	Ser	Ile	Leu	Ser	Thr	Leu	
				200					205						210
Thr	Ser	Leu	Asp	Ala	Leu	Phe	Ser	Trp	Asp	Thr	Val	Phe	Lys	Leu	
				215					220						225
Leu	Ala	Ile	Ala	Met	Val	Ala	Leu	Ile	Pro	Gly	Thr	Leu	Ile	Lys	
				230					235						240
Lys	Phe	Ser	Gln	Lys	His	Leu	Gln	Leu	Asn	Glu	Thr	Ser	Thr	Ala	
				245					250						255
Asn	His	Ile	His	Ser	Arg	Lys	Asp	Thr							
				260											

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<210> 29
<211> 1292
<212> DNA
<213> Homo sapiens
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<211> 1292

<212> DNA

<213> Homo sapiens

<400> 29

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 tgggaagacat ggatcttgct gccaacgaga tcagcattta tgacaaactt 200
 tcagagactg ttgatttggg gagacagacc ggccatcagt gtggcatgtc 250
 agagaaggca attgaaaaat ttatcagaca gctgctggaa aagaatgaac 300
 ctgagagacc cccccgcag tatcctctcc ttatagttgt gtataagggt 350
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<210> 30
 <211> 347
 <212> PRT
 <213> Homo sapiens

<400> 30
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				35					40					45					
Asn	Glu	Pro	Gln	Arg	Pro	Pro	Pro	Gln	Tyr	Pro	Leu	Leu	Ile	Val					
				50					55					60					
Val	Tyr	Lys	Val	Leu	Ala	Thr	Leu	Gly	Leu	Ile	Leu	Leu	Thr	Ala					
				65					70					75					
Tyr	Phe	Val	Ile	Gln	Pro	Phe	Ser	Pro	Leu	Ala	Pro	Glu	Pro	Val					
				80					85					90					
Leu	Ser	Gly	Ala	His	Thr	Trp	Arg	Ser	Leu	Ile	His	His	Ile	Arg					
				95					100					105					
Leu	Met	Ser	Leu	Pro	Ile	Ala	Lys	Lys	Tyr	Met	Ser	Glu	Asn	Lys					
				110					115					120					
Gly	Val	Pro	Leu	His	Gly	Gly	Asp	Glu	Asp	Arg	Pro	Phe	Pro	Asp					
				125					130					135					
Phe	Asp	Pro	Trp	Trp	Thr	Asn	Asp	Cys	Glu	Gln	Asn	Glu	Ser	Glu					
				140					145					150					
Pro	Ile	Pro	Ala	Asn	Cys	Thr	Gly	Cys	Ala	Gln	Lys	His	Leu	Lys					
				155					160					165					
Val	Met	Leu	Leu	Glu	Asp	Ala	Pro	Arg	Lys	Phe	Glu	Arg	Leu	His					
				170					175					180					
Pro	Leu	Val	Ile	Lys	Thr	Gly	Lys	Pro	Leu	Leu	Glu	Glu	Glu	Ile					
				185					190					195					
Gln	His	Phe	Leu	Cys	Gln	Tyr	Pro	Glu	Ala	Thr	Glu	Gly	Phe	Ser					
				200					205					210					
Glu	Gly	Phe	Phe	Ala	Lys	Trp	Trp	Arg	Cys	Phe	Pro	Glu	Arg	Trp					
				215					220					225					
Phe	Pro	Phe	Pro	Tyr	Pro	Trp	Arg	Arg	Pro	Leu	Asn	Arg	Ser	Gln					
				230					235					240					
Met	Leu	Arg	Glu	Leu	Phe	Pro	Val	Phe	Thr	His	Leu	Pro	Phe	Pro					
				245					250					255					
Lys	Asp	Ala	Ser	Leu	Asn	Lys	Cys	Ser	Phe	Leu	His	Pro	Glu	Pro					
				260					265					270					
Val	Val	Gly	Ser	Lys	Met	His	Lys	Met	Pro	Asp	Leu	Phe	Ile	Ile					
				275					280					285					
Gly	Ser	Gly	Glu	Ala	Met	Leu	Gln	Leu	Ile	Pro	Pro	Phe	Gln	Cys					
				290					295					300					
Arg	Arg	His	Cys	Gln	Ser	Val	Ala	Met	Pro	Ile	Glu	Pro	Gly	Asp					
				305					310					315					

Ile Gly Tyr Val Asp Thr Thr His Trp Lys Val Tyr Val Ile Ala
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Arg Gly Val Gln Pro Leu Val Ile Cys Asp Gly Thr Ala Phe Ser
 335 340 345

Glu Leu

<210> 31
 <211> 478
 <212> DNA
 <213> Homo sapiens

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 cgcagtatcc tctccttata gttgtgtata aggttctcgc aaccttggga 400
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<210> 32
 <211> 3531
 <212> DNA
 <213> Homo sapiens

<400> 32
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 tgcctatgag ccgctggggc tgcagtgggg actgccctcc ctgccacca 200
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gcccttcacc tccctgcagc tccagctgca aagtggccgc tttgactgct 1700
ccgaccggca gttccactcg gtggcggcag cctggcaggc acgcctggag 1750
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cttctcggag aaccagaacg gttttgacct gggctgtctc cagctgacca 1850
acgagaaggt aggcgatgtg gtgctacccc cgtgggcccag ctctcctgag 1900

gacttcatcc agcagcacccg ccaggctctg gagtcggagt atgtgtctgc 1950
acacctacac gagtggatcg acctcatctt tggctacaag cagcgggggc 2000
cagccgccga ggaggccctc aatgtcttct attactgcac ctatgagggg 2050
gctgtagacc tggaccatgt gacagatgag cgggaacgga aggctctgga 2100
gggcattatc agcaactttg ggcagactcc ctgtcagctg ctgaaggagc 2150
cacatccaac tcggctctca gctgaggaag cagcccatcg ccttgcacgc 2200
ctggacacta actcacctag catcttccag cacctggacg aactcaaggc 2250
attcttcgca gaggtgactg tgagtgccag tgggctgctg ggcacccaca 2300
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<210> 33
 <211> 1003
 <212> PRT
 <213> Homo sapiens

<400> 33
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 35 40 45
 Gln Glu Leu Val Leu Glu Pro Ala Gln Arg Arg Ala Arg Leu Glu
 50 55 60
 Gly Leu Arg Tyr Thr Ala Val Leu Lys Gln Gln Ala Thr Gln His
 65 70 75
 Ser Met Ala Leu Leu His Trp Gly Ala Leu Trp Arg Gln Leu Ala
 80 85 90
 Ser Pro Cys Gly Ala Trp Ala Leu Arg Asp Thr Pro Ile Pro Arg
 95 100 105
 Trp Lys Leu Ser Ser Ala Glu Thr Tyr Ser Arg Met Arg Leu Lys
 110 115 120
 Leu Val Pro Asn His His Phe Asp Pro His Leu Glu Ala Ser Ala
 125 130 135
 Leu Arg Asp Asn Leu Gly Glu Val Pro Leu Thr Pro Thr Glu Glu
 140 145 150
 Ala Ser Leu Pro Leu Ala Val Thr Lys Glu Ala Lys Val Ser Thr
 155 160 165
 Pro Pro Glu Leu Leu Gln Glu Asp Gln Leu Gly Glu Asp Glu Leu
 170 175 180
 Ala Glu Leu Glu Thr Pro Met Glu Ala Ala Glu Leu Asp Glu Gln
 185 190 195
 Arg Glu Lys Leu Val Leu Ser Ala Glu Cys Gln Leu Val Thr Val
 200 205 210
 Val Ala Val Val Pro Gly Leu Leu Glu Val Thr Thr Gln Asn Val
 215 220 225

Tyr	Phe	Tyr	Asp	Gly	Ser	Thr	Glu	Arg	Val	Glu	Thr	Glu	Glu	Gly	230	235	240
Ile	Gly	Tyr	Asp	Phe	Arg	Arg	Pro	Leu	Ala	Gln	Leu	Arg	Glu	Val	245	250	255
His	Leu	Arg	Arg	Phe	Asn	Leu	Arg	Arg	Ser	Ala	Leu	Glu	Leu	Phe	260	265	270
Phe	Ile	Asp	Gln	Ala	Asn	Tyr	Phe	Leu	Asn	Phe	Pro	Cys	Lys	Val	275	280	285
Gly	Thr	Thr	Pro	Val	Ser	Ser	Pro	Ser	Gln	Thr	Pro	Arg	Pro	Gln	290	295	300
Pro	Gly	Pro	Ile	Pro	Pro	His	Thr	Gln	Val	Arg	Asn	Gln	Val	Tyr	305	310	315
Ser	Trp	Leu	Leu	Arg	Leu	Arg	Pro	Pro	Ser	Gln	Gly	Tyr	Leu	Ser	320	325	330
Ser	Arg	Ser	Pro	Gln	Glu	Met	Leu	Arg	Ala	Ser	Gly	Leu	Thr	Gln	335	340	345
Lys	Trp	Val	Gln	Arg	Glu	Ile	Ser	Asn	Phe	Glu	Tyr	Leu	Met	Gln	350	355	360
Leu	Asn	Thr	Ile	Ala	Gly	Arg	Thr	Tyr	Asn	Asp	Leu	Ser	Gln	Tyr	365	370	375
Pro	Val	Phe	Pro	Trp	Val	Leu	Gln	Asp	Tyr	Val	Ser	Pro	Thr	Leu	380	385	390
Asp	Leu	Ser	Asn	Pro	Ala	Val	Phe	Arg	Asp	Leu	Ser	Lys	Pro	Ile	395	400	405
Gly	Val	Val	Asn	Pro	Lys	His	Ala	Gln	Leu	Val	Arg	Glu	Lys	Tyr	410	415	420
Glu	Ser	Phe	Glu	Asp	Pro	Ala	Gly	Thr	Ile	Asp	Lys	Phe	His	Tyr	425	430	435
Gly	Thr	His	Tyr	Ser	Asn	Ala	Ala	Gly	Val	Met	His	Tyr	Leu	Ile	440	445	450
Arg	Val	Glu	Pro	Phe	Thr	Ser	Leu	His	Val	Gln	Leu	Gln	Ser	Gly	455	460	465
Arg	Phe	Asp	Cys	Ser	Asp	Arg	Gln	Phe	His	Ser	Val	Ala	Ala	Ala	470	475	480
Trp	Gln	Ala	Arg	Leu	Glu	Ser	Pro	Ala	Asp	Val	Lys	Glu	Leu	Ile	485	490	495
Pro	Glu	Phe	Phe	Tyr	Phe	Pro	Asp	Phe	Leu	Glu	Asn	Gln	Asn	Gly	500	505	510
Phe	Asp	Leu	Gly	Cys	Leu	Gln	Leu	Thr	Asn	Glu	Lys	Val	Gly	Asp			

	515		520		525
Val Val Leu Pro	Pro Trp Ala Ser Ser	Pro Glu Asp Phe Ile	Gln		
	530	535	540		
Gln His Arg Gln	Ala Leu Glu Ser Glu	Tyr Val Ser Ala His	Leu		
	545	550	555		
His Glu Trp Ile	Asp Leu Ile Phe Gly	Tyr Lys Gln Arg Gly	Pro		
	560	565	570		
Ala Ala Glu Glu	Ala Leu Asn Val Phe	Tyr Tyr Cys Thr Tyr	Glu		
	575	580	585		
Gly Ala Val Asp	Leu Asp His Val Thr	Asp Glu Arg Glu Arg	Lys		
	590	595	600		
Ala Leu Glu Gly	Ile Ile Ser Asn Phe	Gly Gln Thr Pro Cys	Gln		
	605	610	615		
Leu Leu Lys Glu	Pro His Pro Thr Arg	Leu Ser Ala Glu Glu	Ala		
	620	625	630		
Ala His Arg Leu	Ala Arg Leu Asp Thr	Asn Ser Pro Ser Ile	Phe		
	635	640	645		
Gln His Leu Asp	Glu Leu Lys Ala Phe	Phe Ala Glu Val Thr	Val		
	650	655	660		
Ser Ala Ser Gly	Leu Leu Gly Thr His	Ser Trp Leu Pro Tyr	Asp		
	665	670	675		
Arg Asn Ile Ser	Asn Tyr Phe Ser Phe	Ser Lys Asp Pro Thr	Met		
	680	685	690		
Gly Ser His Lys	Thr Gln Arg Leu Leu	Ser Gly Pro Trp Val	Pro		
	695	700	705		
Gly Ser Gly Val	Ser Gly Gln Ala Leu	Ala Val Ala Pro Asp	Gly		
	710	715	720		
Lys Leu Leu Phe	Ser Gly Gly His Trp	Asp Gly Ser Leu Arg	Val		
	725	730	735		
Thr Ala Leu Pro	Arg Gly Lys Leu Leu	Ser Gln Leu Ser Cys	His		
	740	745	750		
Leu Asp Val Val	Thr Cys Leu Ala Leu	Asp Thr Cys Gly Ile	Tyr		
	755	760	765		
Leu Ile Ser Gly	Ser Arg Asp Thr Thr	Cys Met Val Trp Arg	Leu		
	770	775	780		
Leu His Gln Gly	Gly Leu Ser Val Gly	Leu Ala Pro Lys Pro	Val		
	785	790	795		
Gln Val Leu Tyr	Gly His Gly Ala Ala	Val Ser Cys Val Ala	Ile		
	800	805	810		

Ser	Thr	Glu	Leu	Asp 815	Met	Ala	Val	Ser	Gly 820	Ser	Glu	Asp	Gly	Thr 825
Val	Ile	Ile	His	Thr 830	Val	Arg	Arg	Gly	Gln 835	Phe	Val	Ala	Ala	Leu 840
Arg	Pro	Leu	Gly	Ala 845	Thr	Phe	Pro	Gly	Pro 850	Ile	Phe	His	Leu	Ala 855
Leu	Gly	Ser	Glu	Gly 860	Gln	Ile	Val	Val	Gln 865	Ser	Ser	Ala	Trp	Glu 870
Arg	Pro	Gly	Ala	Gln 875	Val	Thr	Tyr	Ser	Leu 880	His	Leu	Tyr	Ser	Val 885
Asn	Gly	Lys	Leu	Arg 890	Ala	Ser	Leu	Pro	Leu 895	Ala	Glu	Gln	Pro	Thr 900
Ala	Leu	Thr	Val	Thr 905	Glu	Asp	Phe	Val	Leu 910	Leu	Gly	Thr	Ala	Gln 915
Cys	Ala	Leu	His	Ile 920	Leu	Gln	Leu	Asn	Thr 925	Leu	Leu	Pro	Ala	Ala 930
Pro	Pro	Leu	Pro	Met 935	Lys	Val	Ala	Ile	Arg 940	Ser	Val	Ala	Val	Thr 945
Lys	Glu	Arg	Ser	His 950	Val	Leu	Val	Gly	Leu 955	Glu	Asp	Gly	Lys	Leu 960
Ile	Val	Val	Val	Ala 965	Gly	Gln	Pro	Ser	Glu 970	Val	Arg	Ser	Ser	Gln 975
Phe	Ala	Arg	Lys	Leu 980	Trp	Arg	Ser	Ser	Arg 985	Arg	Ile	Ser	Gln	Val 990
Ser	Ser	Gly	Glu	Thr 995	Glu	Tyr	Asn	Pro	Thr 1000	Glu	Ala	Arg		

<210> 34

<212> DNA

<220>

<400> 34

<210> 35

<212> DNA

<400> 35

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ttcaatctgc	aaatctatgg	ggtcctgggg	ctcttctgga	cccttaactg	200
ggtagctggc	ctgggccaat	gcgtcctcgc	tggagccttt	gcctccttct	250
actgggcctt	ccacaagccc	caggacatcc	ctaccttccc	cttaatctct	300
gccttcatcc	gcacactccg	ttaccacact	gggtcattgg	catttgaggc	350
cctcatcctg	acccttgtgc	agatagcccc	ggtcatcttg	gagtatattg	400
accacaagct	cagaggagtg	cagaaccctg	tagcccgtcg	catcatgtgc	450
tgtttcaagt	gctgcctctg	gtgtctggaa	aaatttatca	agttcctaaa	500
ccgcaatgca	tacatcatga	tgcctatcta	cgggaagaat	ttctgtgtct	550
cagccaaaaa	tgcgttcatg	ctactcatgc	gaaacattgt	cagggtggtc	600
gtcctggaca	aagtcacaga	cctgctgctg	ttctttggga	agctgctggg	650
ggtcggaggc	gtgggggtcc	tgtccttctt	ttttttctcc	ggtcgcatcc	700
cggggctggg	taaagacttt	aagagcccc	acctcaacta	ttactggctg	750
cccacatga	cctccatcct	gggggcctat	gtcatcgcca	gcggcttctt	800
cagcgttttc	ggcatgtgtg	tggacacgct	cttcctctgc	ttcctggaag	850
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cccaccgtcc	agccatccaa	cctcacttcg	ccttacaggt	ctccattttg	1050
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ttagccgaga	gtggtggcat	gcacctgtca	tcccagctac	tcgggagggt	1250
gaggcaggag	aatcgcttga	acccgggagg	cagaggttgc	agtgcgccga	1300
gatcgcgcca	ctgcactcca	acctgggtga	cagactctgt	ctccaaaaca	1350
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<210> 36
<211> 321
<212> PRT
<213> Homo sapiens
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<400> 36

Arg	Thr	Arg	Gly	Arg	Thr	Arg	Gly	Gly	Cys	Glu	Lys	Val	Pro	Ile	1	5	10	15
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Pro	Gly	Leu	Met	Cys	Val	Phe	Gln	Gly	Tyr	Ser	Ser	Lys	Gly	Leu	35	40	45	
Ile	Gln	Arg	Ser	Val	Phe	Asn	Leu	Gln	Ile	Tyr	Gly	Val	Leu	Gly	50	55	60	
Leu	Phe	Trp	Thr	Leu	Asn	Trp	Val	Leu	Ala	Leu	Gly	Gln	Cys	Val	65	70	75	
Leu	Ala	Gly	Ala	Phe	Ala	Ser	Phe	Tyr	Trp	Ala	Phe	His	Lys	Pro	80	85	90	
Gln	Asp	Ile	Pro	Thr	Phe	Pro	Leu	Ile	Ser	Ala	Phe	Ile	Arg	Thr	95	100	105	
Leu	Arg	Tyr	His	Thr	Gly	Ser	Leu	Ala	Phe	Gly	Ala	Leu	Ile	Leu	110	115	120	
Thr	Leu	Val	Gln	Ile	Ala	Arg	Val	Ile	Leu	Glu	Tyr	Ile	Asp	His	125	130	135	
Lys	Leu	Arg	Gly	Val	Gln	Asn	Pro	Val	Ala	Arg	Cys	Ile	Met	Cys	140	145	150	
Cys	Phe	Lys	Cys	Cys	Leu	Trp	Cys	Leu	Glu	Lys	Phe	Ile	Lys	Phe	155	160	165	
Leu	Asn	Arg	Asn	Ala	Tyr	Ile	Met	Ile	Ala	Ile	Tyr	Gly	Lys	Asn	170	175	180	
Phe	Cys	Val	Ser	Ala	Lys	Asn	Ala	Phe	Met	Leu	Leu	Met	Arg	Asn	185	190	195	
Ile	Val	Arg	Val	Val	Val	Leu	Asp	Lys	Val	Thr	Asp	Leu	Leu	Leu	200	205	210	
Phe	Phe	Gly	Lys	Leu	Leu	Val	Val	Gly	Gly	Val	Gly	Val	Leu	Ser	215	220	225	
Phe	Phe	Phe	Phe	Ser	Gly	Arg	Ile	Pro	Gly	Leu	Gly	Lys	Asp	Phe	230	235	240	
Lys	Ser	Pro	His	Leu	Asn	Tyr	Tyr	Trp	Leu	Pro	Ile	Met	Thr	Ser	245	250	255	
Ile	Leu	Gly	Ala	Tyr	Val	Ile	Ala	Ser	Gly	Phe	Phe	Ser	Val	Phe	260	265	270	
Gly	Met	Cys	Val	Asp	Thr	Leu	Phe	Leu	Cys	Phe	Leu	Glu	Asp	Leu	275	280	285	

Glu	Arg	Asn	Asn	Gly	Ser	Leu	Asp	Arg	Pro	Tyr	Tyr	Met	Ser	Lys
				290					295					300
Ser	Leu	Leu	Lys	Ile	Leu	Gly	Lys	Lys	Asn	Glu	Ala	Pro	Pro	Asp
				305					310					315
Asn	Lys	Lys	Arg	Lys	Lys									
				320										

<210> 37
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 37
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<210> 38
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 38
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<210> 39
 <211> 50
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

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<210> 40
 <211> 1365
 <212> DNA
 <213> Homo sapiens

<400> 40
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 gctctgtgtg cgtgcaagat ccttcaggcc ttgttccagt gtgaccacgt 200
 gcaatatacg ctggttccag tttctgggtg gcaagaactt gaaactgcat 250

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<210> 41
<211> 566
<212> PRT
<213> Homo sapiens

<400> 41
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Ser Gln Arg Val Leu Phe Val Ala Ser Asp Val Asp Ala Leu
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Cys	Ala	Cys	Lys	Ile 35	Leu	Gln	Ala	Leu	Phe 40	Gln	Cys	Asp	His	Val 45
Gln	Tyr	Thr	Leu	Val 50	Pro	Val	Ser	Gly	Trp 55	Gln	Glu	Leu	Glu	Thr 60
Ala	Phe	Leu	Glu	His 65	Lys	Glu	Gln	Phe	His 70	Tyr	Phe	Ile	Leu	Ile 75
Asn	Cys	Gly	Ala	Asn 80	Val	Asp	Leu	Leu	Asp 85	Ile	Leu	Gln	Pro	Asp 90
Glu	Asp	Thr	Ile	Phe 95	Phe	Val	Cys	Asp	Ser 100	His	Arg	Pro	Val	Asn 105
Val	Val	Asn	Val	Tyr 110	Asn	Asp	Thr	Gln	Ile 115	Lys	Leu	Leu	Ile	Lys 120
Gln	Asp	Asp	Asp	Leu 125	Glu	Val	Pro	Ala	Tyr 130	Glu	Asp	Ile	Phe	Arg 135
Asp	Glu	Glu	Glu	Asp 140	Glu	Glu	His	Ser	Gly 145	Asn	Asp	Ser	Asp	Gly 150
Ser	Glu	Pro	Ser	Glu 155	Lys	Arg	Thr	Arg	Leu 160	Glu	Glu	Glu	Ile	Val 165
Glu	Gln	Thr	Met	Arg 170	Arg	Arg	Gln	Arg	Arg 175	Glu	Trp	Glu	Ala	Arg 180
Arg	Arg	Asp	Ile	Leu 185	Phe	Asp	Tyr	Glu	Gln 190	Tyr	Glu	Tyr	His	Gly 195
Thr	Ser	Ser	Ala	Met 200	Val	Met	Phe	Glu	Leu 205	Ala	Trp	Met	Leu	Ser 210
Lys	Asp	Leu	Asn	Asp 215	Met	Leu	Trp	Trp	Ala 220	Ile	Val	Gly	Leu	Thr 225
Asp	Gln	Trp	Val	Gln 230	Asp	Lys	Ile	Thr	Gln 235	Met	Lys	Tyr	Val	Thr 240
Asp	Val	Gly	Val	Leu 245	Gln	Arg	His	Val	Ser 250	Arg	His	Asn	His	Arg 255
Asn	Glu	Asp	Glu	Glu 260	Asn	Thr	Leu	Ser	Val 265	Asp	Cys	Thr	Arg	Ile 270
Ser	Phe	Glu	Tyr	Asp 275	Leu	Arg	Leu	Val	Leu 280	Tyr	Gln	His	Trp	Ser 285
Leu	His	Asp	Ser	Leu 290	Cys	Asn	Thr	Ser	Tyr 295	Thr	Ala	Ala	Arg	Phe 300
Lys	Leu	Trp	Ser	Val 305	His	Gly	Gln	Lys	Arg 310	Leu	Gln	Glu	Phe	Leu 315
Ala	Asp	Met	Gly	Leu	Pro	Leu	Lys	Gln	Val	Lys	Gln	Lys	Phe	Gln

	320		325		330
Ala Met Asp Ile	Ser Leu Lys Glu Asn	Leu Arg Glu Met Ile	Glu		
	335		340		345
Glu Ser Ala Asn	Lys Phe Gly Met Lys	Asp Met Arg Val Gln	Thr		
	350		355		360
Phe Ser Ile His	Phe Gly Phe Lys His	Lys Phe Leu Ala Ser	Asp		
	365		370		375
Val Val Phe Ala	Thr Met Ser Leu Met	Glu Ser Pro Glu Lys	Asp		
	380		385		390
Gly Ser Gly Thr	Asp His Phe Ile Gln	Ala Leu Asp Ser Leu	Ser		
	395		400		405
Arg Ser Asn Leu	Asp Lys Leu Tyr His	Gly Leu Glu Leu Ala	Lys		
	410		415		420
Lys Gln Leu Arg	Ala Thr Gln Gln Thr	Ile Ala Ser Cys Leu	Cys		
	425		430		435
Thr Asn Leu Val	Ile Ser Gln Gly Pro	Phe Leu Tyr Cys Ser	Leu		
	440		445		450
Met Glu Gly Thr	Pro Asp Val Met Leu	Phe Ser Arg Pro Ala	Ser		
	455		460		465
Leu Ser Leu Leu	Ser Lys His Leu Leu	Lys Ser Phe Val Cys	Ser		
	470		475		480
Thr Lys Asn Arg	Arg Cys Lys Leu Leu	Pro Leu Val Met Ala	Ala		
	485		490		495
Pro Leu Ser Met	Glu His Gly Thr Val	Thr Val Val Gly Ile	Pro		
	500		505		510
Pro Glu Thr Asp	Ser Ser Asp Arg Lys	Asn Phe Phe Gly Arg	Ala		
	515		520		525
Phe Glu Lys Ala	Ala Glu Ser Thr Ser	Ser Arg Met Leu His	Asn		
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His Phe Asp Leu	Ser Val Ile Glu Leu	Lys Ala Glu Asp Arg	Ser		
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Lys Phe Leu Asp	Ala Leu Ile Ser Leu	Leu Ser			
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<223> Synthetic oligonucleotide probe

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<211> 3089

<212> DNA

<213> Homo sapiens

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 <213> Homo sapiens

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<220>
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 Pro His Ala Leu Pro Glu Ile Arg Pro Tyr Ile Asn Ile Thr Ile
 65 70 75
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 80 85 90
 Tyr Met Gly Arg Glu Gly Pro Gln Gly Glu Pro Gly Pro Gln Gly
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 Ser Lys Gly Asp Lys Gly Glu Met Gly Ser Pro Gly Ala Pro Cys
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 Gln Lys Arg Phe Phe Ala Phe Ser Val Gly Arg Lys Thr Ala Leu
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Trp	Asn	Tyr	Lys	Glu	Thr	Tyr	Val	His	Ile	Met	His	Asn	Gln	Lys
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Glu	Ala	Val	Ile	Leu	Tyr	Ala	Gln	Pro	Ser	Glu	Arg	Ser	Ile	Met
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Gln	Ser	Gln	Ser	Val	Met	Leu	Asp	Leu	Ala	Tyr	Gly	Asp	Arg	Val
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Trp	Val	Arg	Leu	Phe	Lys	Arg	Gln	Arg	Glu	Asn	Ala	Ile	Tyr	Ser
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<210> 50
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<211> 2768
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<213> Homo sapiens

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Glu Asn Gly Ile Thr Met Leu Asp Ala Gly Ser Phe Ala Gly Leu
65 70 75

Leu Pro Ser Gly Val Phe Gln Pro Leu Ala Asn Leu Ser Asn Leu
95 100 105

Arg Gly Leu Arg Arg Leu Glu Arg Leu Tyr Leu Gly Lys Asn Arg
125 130 135

Leu Glu Leu Lys Leu Gln Asp Asn Glu Leu Arg Ala Leu Pro Pro
155 160 165

Leu Leu Ala Leu Glu Pro Gly Ile Leu Asp Thr Ala Asn Val Glu
185 190 195

Leu Phe Ser Arg Leu Arg Asn Leu His Asp Leu Asp Val Ser Asp
215 220 225

Leu Thr Arg Leu Arg Leu Ala Gly Asn Thr Arg Ile Ala Gln Leu
245 250 255

58

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Leu	Phe	Pro	Arg	Leu 290	Arg	Leu	Leu	Ala	Ala 295	Ala	Arg	Asn	Pro	Phe 300
Asn	Cys	Val	Cys	Pro 305	Leu	Ser	Trp	Phe	Gly 310	Pro	Trp	Val	Arg	Glu 315
Ser	His	Val	Thr	Leu 320	Ala	Ser	Pro	Glu	Glu 325	Thr	Arg	Cys	His	Phe 330
Pro	Pro	Lys	Asn	Ala 335	Gly	Arg	Leu	Leu	Leu 340	Glu	Leu	Asp	Tyr	Ala 345
Asp	Phe	Gly	Cys	Pro 350	Ala	Thr	Thr	Thr	Thr 355	Ala	Thr	Val	Pro	Thr 360
Thr	Arg	Pro	Val	Val 365	Arg	Glu	Pro	Thr	Ala 370	Leu	Ser	Ser	Ser	Leu 375
Ala	Pro	Thr	Trp	Leu 380	Ser	Pro	Thr	Ala	Pro 385	Ala	Thr	Glu	Ala	Pro 390
Ser	Pro	Pro	Ser	Thr 395	Ala	Pro	Pro	Thr	Val 400	Gly	Pro	Val	Pro	Gln 405
Pro	Gln	Asp	Cys	Pro 410	Pro	Ser	Thr	Cys	Leu 415	Asn	Gly	Gly	Thr	Cys 420
His	Leu	Gly	Thr	Arg 425	His	His	Leu	Ala	Cys 430	Leu	Cys	Pro	Glu	Gly 435
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Arg	Pro	Asn	Ala	Thr 530	Tyr	Ser	Val	Cys	Val 535	Met	Pro	Leu	Gly	Pro 540
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Glu	Gly	Asn	Leu	Pro	Leu	Leu	Ile	Ala	Pro	Ala	Leu	Ala	Ala	Val
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Leu	Leu	Ala	Ala	Leu	Ala	Ala	Val	Gly	Ala	Ala	Tyr	Cys	Val	Arg
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Arg	Gly	Arg	Ala	Met	Ala	Ala	Ala	Ala	Gln	Asp	Lys	Gly	Gln	Val
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Gly	Pro	Gly	Ala	Gly	Pro	Leu	Glu	Leu	Glu	Gly	Val	Lys	Val	Pro
				620					625					630
Leu	Glu	Pro	Gly	Pro	Lys	Ala	Thr	Glu	Gly	Gly	Gly	Glu	Ala	Leu
				635					640					645
Pro	Ser	Gly	Ser	Glu	Cys	Glu	Val	Pro	Leu	Met	Gly	Phe	Pro	Gly
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 <223> Synthetic oligonucleotide probe

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<210> 56

<211> 3462
<212> DNA
<213> Homo sapiens

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 gtgggctttt ctgggcaaac cttcgagctg ctattaatgt taatgtatta 2450
 gccaccagag aaatgtatga actgcagaca ttcacagagt taaatgaaga 2500
 gtctcgaggt tctacaatct ctctgatgag aacagattgt ctataaaatc 2550
 ccacagtcct tgggaagttg gggaccacat aactgttgg gatgtacatt 2600
 gataaacct ttatgatggc aatttgacaa tatttattaa aataaaaaat 2650
 gggtattccc ttcatatcag tttctagaag gatttctaag aatgtatcct 2700
 atagaaacac cttcacaagt ttataagggc ttatggaaaa aggtgttcat 2750
 cccaggattg tttataatca tgaaaaatgt ggccaggtgc agtggctcac 2800

Tyr	Leu	Asp	Leu	Ser	Phe	Asn	Asp	Phe	Asp	Thr	Met	Pro	Ile	Cys	
				125					130					135	
Glu	Glu	Ala	Gly	Asn	Met	Ser	His	Leu	Glu	Ile	Leu	Gly	Leu	Ser	
				140					145					150	
Gly	Ala	Lys	Ile	Gln	Lys	Ser	Asp	Phe	Gln	Lys	Ile	Ala	His	Leu	
				155					160					165	
His	Leu	Asn	Thr	Val	Phe	Leu	Gly	Phe	Arg	Thr	Leu	Pro	His	Tyr	
				170					175					180	
Glu	Glu	Gly	Ser	Leu	Pro	Ile	Leu	Asn	Thr	Thr	Lys	Leu	His	Ile	
				185					190					195	
Val	Leu	Pro	Met	Asp	Thr	Asn	Phe	Trp	Val	Leu	Leu	Arg	Asp	Gly	
				200					205					210	
Ile	Lys	Thr	Ser	Lys	Ile	Leu	Glu	Met	Thr	Asn	Ile	Asp	Gly	Lys	
				215					220					225	
Ser	Gln	Phe	Val	Ser	Tyr	Glu	Met	Gln	Arg	Asn	Leu	Ser	Leu	Glu	
				230					235					240	
Asn	Ala	Lys	Thr	Ser	Val	Leu	Leu	Leu	Asn	Lys	Val	Asp	Leu	Leu	
				245					250					255	
Trp	Asp	Asp	Leu	Phe	Leu	Ile	Leu	Gln	Phe	Val	Trp	His	Thr	Ser	
				260					265					270	
Val	Glu	His	Phe	Gln	Ile	Arg	Asn	Val	Thr	Phe	Gly	Gly	Lys	Ala	
				275					280					285	
Tyr	Leu	Asp	His	Asn	Ser	Phe	Asp	Tyr	Ser	Asn	Thr	Val	Met	Arg	
				290					295					300	
Thr	Ile	Lys	Leu	Glu	His	Val	His	Phe	Arg	Val	Phe	Tyr	Ile	Gln	
				305					310					315	
Gln	Asp	Lys	Ile	Tyr	Leu	Leu	Leu	Thr	Lys	Met	Asp	Ile	Glu	Asn	
				320					325					330	
Leu	Thr	Ile	Ser	Asn	Ala	Gln	Met	Pro	His	Met	Leu	Phe	Pro	Asn	
				335					340					345	
Tyr	Pro	Thr	Lys	Phe	Gln	Tyr	Leu	Asn	Phe	Ala	Asn	Asn	Ile	Leu	
				350					355					360	
Thr	Asp	Glu	Leu	Phe	Lys	Arg	Thr	Ile	Gln	Leu	Pro	His	Leu	Lys	
				365					370					375	
Thr	Leu	Ile	Leu	Asn	Gly	Asn	Lys	Leu	Glu	Thr	Leu	Ser	Leu	Val	
				380					385					390	
Ser	Cys	Phe	Ala	Asn	Asn	Thr	Pro	Leu	Glu	His	Leu	Asp	Leu	Ser	
				395					400					405	
Gln	Asn	Leu	Leu	Gln	His	Lys	Asn	Asp	Glu	Asn	Cys	Ser	Trp	Pro	

				410						415						420
Glu	Thr	Val	Val	Asn	Met	Asn	Leu	Ser	Tyr	Asn	Lys	Leu	Ser	Asp		
				425					430					435		
Ser	Val	Phe	Arg	Cys	Leu	Pro	Lys	Ser	Ile	Gln	Ile	Leu	Asp	Leu		
				440					445					450		
Asn	Asn	Asn	Gln	Ile	Gln	Thr	Val	Pro	Lys	Glu	Thr	Ile	His	Leu		
				455					460					465		
Met	Ala	Leu	Arg	Glu	Leu	Asn	Ile	Ala	Phe	Asn	Phe	Leu	Thr	Asp		
				470					475					480		
Leu	Pro	Gly	Cys	Ser	His	Phe	Ser	Arg	Leu	Ser	Val	Leu	Asn	Ile		
				485					490					495		
Glu	Met	Asn	Phe	Ile	Leu	Ser	Pro	Ser	Leu	Asp	Phe	Val	Gln	Ser		
				500					505					510		
Cys	Gln	Glu	Val	Lys	Thr	Leu	Asn	Ala	Gly	Arg	Asn	Pro	Phe	Arg		
				515					520					525		
Cys	Thr	Cys	Glu	Leu	Lys	Asn	Phe	Ile	Gln	Leu	Glu	Thr	Tyr	Ser		
				530					535					540		
Glu	Val	Met	Met	Val	Gly	Trp	Ser	Asp	Ser	Tyr	Thr	Cys	Glu	Tyr		
				545					550					555		
Pro	Leu	Asn	Leu	Arg	Gly	Thr	Arg	Leu	Lys	Asp	Val	His	Leu	His		
				560					565					570		
Glu	Leu	Ser	Cys	Asn	Thr	Ala	Leu	Leu	Ile	Val	Thr	Ile	Val	Val		
				575					580					585		
Ile	Met	Leu	Val	Leu	Gly	Leu	Ala	Val	Ala	Phe	Cys	Cys	Leu	His		
				590					595					600		
Phe	Asp	Leu	Pro	Trp	Tyr	Leu	Arg	Met	Leu	Gly	Gln	Cys	Thr	Gln		
				605					610					615		
Thr	Trp	His	Arg	Val	Arg	Lys	Thr	Thr	Gln	Glu	Gln	Leu	Lys	Arg		
				620					625					630		
Asn	Val	Arg	Phe	His	Ala	Phe	Ile	Ser	Tyr	Ser	Glu	His	Asp	Ser		
				635					640					645		
Leu	Trp	Val	Lys	Asn	Glu	Leu	Ile	Pro	Asn	Leu	Glu	Lys	Glu	Asp		
				650					655					660		
Gly	Ser	Ile	Leu	Ile	Cys	Leu	Tyr	Glu	Ser	Tyr	Phe	Asp	Pro	Gly		
				665					670					675		
Lys	Ser	Ile	Ser	Glu	Asn	Ile	Val	Ser	Phe	Ile	Glu	Lys	Ser	Tyr		
				680					685					690		
Lys	Ser	Ile	Phe	Val	Leu	Ser	Pro	Asn	Phe	Val	Gln	Asn	Glu	Trp		
				695					700					705		

Cys	His	Tyr	Glu	Phe	Tyr	Phe	Ala	His	His	Asn	Leu	Phe	His	Glu	
				710					715					720	
Asn	Ser	Asp	His	Ile	Ile	Leu	Ile	Leu	Leu	Glu	Pro	Ile	Pro	Phe	
				725					730					735	
Tyr	Cys	Ile	Pro	Thr	Arg	Tyr	His	Lys	Leu	Lys	Ala	Leu	Leu	Glu	
				740					745					750	
Lys	Lys	Ala	Tyr	Leu	Glu	Trp	Pro	Lys	Asp	Arg	Arg	Lys	Cys	Gly	
				755					760					765	
Leu	Phe	Trp	Ala	Asn	Leu	Arg	Ala	Ala	Ile	Asn	Val	Asn	Val	Leu	
				770					775					780	
Ala	Thr	Arg	Glu	Met	Tyr	Glu	Leu	Gln	Thr	Phe	Thr	Glu	Leu	Asn	
				785					790					795	
Glu	Glu	Ser	Arg	Gly	Ser	Thr	Ile	Ser	Leu	Met	Arg	Thr	Asp	Cys	
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Leu

<210> 58
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 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

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<210> 59
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 59
 ttatagacaa tctgttctca tcagaga 27

<210> 60
 <211> 40
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 60
 aaaaagcata cttggaatgg cccaaggata ggtgtaaag 40

<210> 61

<211> 3772
 <212> DNA
 <213> Homo sapiens

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 agcccagccc agccccgcgg gccggtcaca cgcgcagcca gccggccgcc 200
 tcccgcgccc aagcgcgccc ctctgctgtg ccctgcgccc ttgccccgcg 250
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 gccctggggcg cgggggcggag caggcatgtc ccgccccgggg accgctaccc 350
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aaaaaaaaa aaaaaaaaaa aa 3772

<210> 62
<211> 756
<212> PRT
<213> Homo sapiens

<400> 62
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Leu Ala Val Thr Leu Ala Gly Val Gly Ala Gln Gly Ala Ala Leu
20 25 30
Glu Asp Pro Asp Tyr Tyr Gly Gln Glu Ile Trp Ser Arg Glu Pro
35 40 45
Tyr Tyr Ala Arg Pro Glu Pro Glu Leu Glu Thr Phe Ser Pro Pro
50 55 60

Leu	Pro	Ala	Gly	Pro	Gly	Glu	Glu	Trp	Glu	Arg	Arg	Pro	Gln	Glu		65	70	75
Pro	Arg	Pro	Pro	Lys	Arg	Ala	Thr	Lys	Pro	Lys	Lys	Ala	Pro	Lys		80	85	90
Arg	Glu	Lys	Ser	Ala	Pro	Glu	Pro	Pro	Pro	Pro	Gly	Lys	His	Ser		95	100	105
Asn	Lys	Lys	Val	Met	Arg	Thr	Lys	Ser	Ser	Glu	Lys	Ala	Ala	Asn		110	115	120
Asp	Asp	His	Ser	Val	Arg	Val	Ala	Arg	Glu	Asp	Val	Arg	Glu	Ser		125	130	135
Cys	Pro	Pro	Leu	Gly	Leu	Glu	Thr	Leu	Lys	Ile	Thr	Asp	Phe	Gln		140	145	150
Leu	His	Ala	Ser	Thr	Val	Lys	Arg	Tyr	Gly	Leu	Gly	Ala	His	Arg		155	160	165
Gly	Arg	Leu	Asn	Ile	Gln	Ala	Gly	Ile	Asn	Glu	Asn	Asp	Phe	Tyr		170	175	180
Asp	Gly	Ala	Trp	Cys	Ala	Gly	Arg	Asn	Asp	Leu	Gln	Gln	Trp	Ile		185	190	195
Glu	Val	Asp	Ala	Arg	Arg	Leu	Thr	Arg	Phe	Thr	Gly	Val	Ile	Thr		200	205	210
Gln	Gly	Arg	Asn	Ser	Leu	Trp	Leu	Ser	Asp	Trp	Val	Thr	Ser	Tyr		215	220	225
Lys	Val	Met	Val	Ser	Asn	Asp	Ser	His	Thr	Trp	Val	Thr	Val	Lys		230	235	240
Asn	Gly	Ser	Gly	Asp	Met	Ile	Phe	Glu	Gly	Asn	Ser	Glu	Lys	Glu		245	250	255
Ile	Pro	Val	Leu	Asn	Glu	Leu	Pro	Val	Pro	Met	Val	Ala	Arg	Tyr		260	265	270
Ile	Arg	Ile	Asn	Pro	Gln	Ser	Trp	Phe	Asp	Asn	Gly	Ser	Ile	Cys		275	280	285
Met	Arg	Met	Glu	Ile	Leu	Gly	Cys	Pro	Leu	Pro	Asp	Pro	Asn	Asn		290	295	300
Tyr	Tyr	His	Arg	Arg	Asn	Glu	Met	Thr	Thr	Thr	Asp	Asp	Leu	Asp		305	310	315
Phe	Lys	His	His	Asn	Tyr	Lys	Glu	Met	Arg	Gln	Leu	Met	Lys	Val		320	325	330
Val	Asn	Glu	Met	Cys	Pro	Asn	Ile	Thr	Arg	Ile	Tyr	Asn	Ile	Gly		335	340	345
Lys	Ser	His	Gln	Gly	Leu	Lys	Leu	Tyr	Ala	Val	Glu	Ile	Ser	Asp				

102220 256T460

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His Pro Gly Glu	His Glu Val Gly Glu	Pro Glu Phe His Tyr Ile			
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Ala Gly Ala His	Gly Asn Glu Val Leu	Gly Arg Glu Leu Leu Leu			
	380	385			390
Leu Leu Val Gln	Phe Val Cys Gln Glu	Tyr Leu Ala Arg Asn Ala			
	395	400			405
Arg Ile Val His	Leu Val Glu Glu Thr	Arg Ile His Val Leu Pro			
	410	415			420
Ser Leu Asn Pro	Asp Gly Tyr Glu Lys	Ala Tyr Glu Gly Gly Ser			
	425	430			435
Glu Leu Gly Gly	Trp Ser Leu Gly Arg	Trp Thr His Asp Gly Ile			
	440	445			450
Asp Ile Asn Asn	Asn Phe Pro Asp Leu	Asn Thr Leu Leu Trp Glu			
	455	460			465
Ala Glu Asp Arg	Gln Asn Val Pro Arg	Lys Val Pro Asn His Tyr			
	470	475			480
Ile Ala Ile Pro	Glu Trp Phe Leu Ser	Glu Asn Ala Thr Val Ala			
	485	490			495
Ala Glu Thr Arg	Ala Val Ile Ala Trp	Met Glu Lys Ile Pro Phe			
	500	505			510
Val Leu Gly Gly	Asn Leu Gln Gly Gly	Glu Leu Val Val Ala Tyr			
	515	520			525
Pro Tyr Asp Leu	Val Arg Ser Pro Trp	Lys Thr Gln Glu His Thr			
	530	535			540
Pro Thr Pro Asp	Asp His Val Phe Arg	Trp Leu Ala Tyr Ser Tyr			
	545	550			555
Ala Ser Thr His	Arg Leu Met Thr Asp	Ala Arg Arg Arg Val Cys			
	560	565			570
His Thr Glu Asp	Phe Gln Lys Glu Glu	Gly Thr Val Asn Gly Ala			
	575	580			585
Ser Trp His Thr	Val Ala Gly Ser Leu	Asn Asp Phe Ser Tyr Leu			
	590	595			600
His Thr Asn Cys	Phe Glu Leu Ser Ile	Tyr Val Gly Cys Asp Lys			
	605	610			615
Tyr Pro His Glu	Ser Gln Leu Pro Glu	Glu Trp Glu Asn Asn Arg			
	620	625			630
Glu Ser Leu Ile	Val Phe Met Glu Gln	Val His Arg Gly Ile Lys			
	635	640			645

Gly	Leu	Val	Arg	Asp	Ser	His	Gly	Lys	Gly	Ile	Pro	Asn	Ala	Ile	650	655	660
Ile	Ser	Val	Glu	Gly	Ile	Asn	His	Asp	Ile	Arg	Thr	Ala	Asn	Asp	665	670	675
Gly	Asp	Tyr	Trp	Arg	Leu	Leu	Asn	Pro	Gly	Glu	Tyr	Val	Val	Thr	680	685	690
Ala	Lys	Ala	Glu	Gly	Phe	Thr	Ala	Ser	Thr	Lys	Asn	Cys	Met	Val	695	700	705
Gly	Tyr	Asp	Met	Gly	Ala	Thr	Arg	Cys	Asp	Phe	Thr	Leu	Ser	Lys	710	715	720
Thr	Asn	Met	Ala	Arg	Ile	Arg	Glu	Ile	Met	Glu	Lys	Phe	Gly	Lys	725	730	735
Gln	Pro	Val	Ser	Leu	Pro	Ala	Arg	Arg	Leu	Lys	Leu	Arg	Gly	Arg	740	745	750
Lys	Arg	Arg	Gln	Arg	Gly										755		

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 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

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<210> 64
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 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 64
 cgcgatgtag tggaactcgg gctc 24

<210> 65
 <211> 50
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 65
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<210> 66

<211> 2854
<212> DNA
<213> Homo sapiens

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Glu	Tyr	Tyr	Arg	Leu 305	Tyr	Asn	Thr	Leu	Asp 310	Asp	Leu	Leu	Leu	Tyr 315
Ile	Asn	Ala	Arg	Glu 320	Leu	Arg	Ile	Thr	Tyr 325	Gly	Gln	Gly	Ser	Gly 330
Thr	Ala	Val	Tyr	Asn 335	Asn	Asn	Met	Tyr	Val 340	Asn	Met	Tyr	Asn	Thr 345
Gly	Asn	Ile	Ala	Arg 350	Val	Asn	Leu	Thr	Thr 355	Asn	Thr	Ile	Ala	Val 360
Thr	Gln	Thr	Leu	Pro 365	Asn	Ala	Ala	Tyr	Asn 370	Asn	Arg	Phe	Ser	Tyr 375
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Trp	Tyr	Thr	Lys	Gln 425	Tyr	Lys	Pro	Ser	Ala 430	Ser	Asn	Ala	Phe	Met 435
Val	Cys	Gly	Val	Leu 440	Tyr	Ala	Thr	Arg	Thr 445	Met	Asn	Thr	Arg	Thr 450
Glu	Glu	Ile	Phe	Tyr 455	Tyr	Tyr	Asp	Thr	Asn 460	Thr	Gly	Lys	Glu	Gly 465
Lys	Leu	Asp	Ile	Val 470	Met	His	Lys	Met	Gln 475	Glu	Lys	Val	Gln	Ser 480
Ile	Asn	Tyr	Asn	Pro 485	Phe	Asp	Gln	Lys	Leu 490	Tyr	Val	Tyr	Asn	Asp 495
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<212> DNA
<213> Homo sapiens
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<221> unsure
<222> 206, 217, 387
<223> unknown base

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ctcgagagtt gcggatcacc tatggccaag gtagtggtac agcagtttac 350
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taacctgacc 410

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<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 69
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<210> 70
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<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 70
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<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

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<210> 72

<211> 3127
<212> DNA
<213> Homo sapiens

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 <211> 453
 <212> PRT
 <213> Homo sapiens

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 Ser Gly Asn Asn Ser Thr Val Thr Arg Leu Ile Tyr Ala Leu Phe
 35 40 45
 Leu Leu Val Gly Val Cys Val Ala Cys Val Met Leu Ile Pro Gly
 50 55 60
 Met Glu Glu Gln Leu Asn Lys Ile Pro Gly Phe Cys Glu Asn Glu
 65 70 75
 Lys Gly Val Val Pro Cys Asn Ile Leu Val Gly Tyr Lys Ala Val
 80 85 90
 Tyr Arg Leu Cys Phe Gly Leu Ala Met Phe Tyr Leu Leu Leu Ser
 95 100 105
 Leu Leu Met Ile Lys Val Lys Ser Ser Ser Asp Pro Arg Ala Ala
 110 115 120
 Val His Asn Gly Phe Trp Phe Phe Lys Phe Ala Ala Ala Ile Ala
 125 130 135
 Ile Ile Ile Gly Ala Phe Phe Ile Pro Glu Gly Thr Phe Thr Thr
 140 145 150
 Val Trp Phe Tyr Val Gly Met Ala Gly Ala Phe Cys Phe Ile Leu
 155 160 165
 Ile Gln Leu Val Leu Leu Ile Asp Phe Ala His Ser Trp Asn Glu
 170 175 180
 Ser Trp Val Glu Lys Met Glu Glu Gly Asn Ser Arg Cys Trp Tyr
 185 190 195

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Val	Ala	Ile	Val	Leu	Phe	Phe	Val	Tyr	Tyr	Thr	His	Pro	Ala	Ser	215	220	225
Cys	Ser	Glu	Asn	Lys	Ala	Phe	Ile	Ser	Val	Asn	Met	Leu	Leu	Cys	230	235	240
Val	Gly	Ala	Ser	Val	Met	Ser	Ile	Leu	Pro	Lys	Ile	Gln	Glu	Ser	245	250	255
Gln	Pro	Arg	Ser	Gly	Leu	Leu	Gln	Ser	Ser	Val	Ile	Thr	Val	Tyr	260	265	270
Thr	Met	Tyr	Leu	Thr	Trp	Ser	Ala	Met	Thr	Asn	Glu	Pro	Glu	Thr	275	280	285
Asn	Cys	Asn	Pro	Ser	Leu	Leu	Ser	Ile	Ile	Gly	Tyr	Asn	Thr	Thr	290	295	300
Ser	Thr	Val	Pro	Lys	Glu	Gly	Gln	Ser	Val	Gln	Trp	Trp	His	Ala	305	310	315
Gln	Gly	Ile	Ile	Gly	Leu	Ile	Leu	Phe	Leu	Leu	Cys	Val	Phe	Tyr	320	325	330
Ser	Ser	Ile	Arg	Thr	Ser	Asn	Asn	Ser	Gln	Val	Asn	Lys	Leu	Thr	335	340	345
Leu	Thr	Ser	Asp	Glu	Ser	Thr	Leu	Ile	Glu	Asp	Gly	Gly	Ala	Arg	350	355	360
Ser	Asp	Gly	Ser	Leu	Glu	Asp	Gly	Asp	Asp	Val	His	Arg	Ala	Val	365	370	375
Asp	Asn	Glu	Arg	Asp	Gly	Val	Thr	Tyr	Ser	Tyr	Ser	Phe	Phe	His	380	385	390
Phe	Met	Leu	Phe	Leu	Ala	Ser	Leu	Tyr	Ile	Met	Met	Thr	Leu	Thr	395	400	405
Asn	Trp	Ser	Arg	Tyr	Glu	Pro	Ser	Arg	Glu	Met	Lys	Ser	Gln	Trp	410	415	420
Thr	Ala	Val	Trp	Val	Lys	Ile	Ser	Ser	Ser	Trp	Ile	Gly	Ile	Val	425	430	435
Leu	Tyr	Val	Trp	Thr	Leu	Val	Ala	Pro	Leu	Val	Leu	Thr	Asn	Arg	440	445	450
Asp Phe Asp																	

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 <212> DNA
 <213> Homo sapiens

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<222> 48, 163
<223> unknown base

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<210> 75
<211> 438
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 32, 65, 92, 121, 142, 154, 170, 293, 315, 323
<223> unknown base

<400> 75
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<210> 76
<211> 473
<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 48

<223> unknown base

<400> 76

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atthttggttg gctataaagc tgtatatcgt ttgtgctttg gtttggttat 350
gttctatctt cttctctctt tactaatgat caaagtgaag agtagcagt 400
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gcaattgcaa ttattattgg ggc 473

<210> 77

<211> 666

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 21, 111

<223> unknown base

<400> 77

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 agttgttcag aaaacaaggc gttcatcagt gtcaacatgc tcctctgcgt 650
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 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

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<210> 79
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 <212> DNA
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<220>
 <223> Synthetic oligonucleotide probe

<400> 79
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<210> 80
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<220>
 <223> Synthetic oligonucleotide probe

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<210> 82
 <211> 54
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 <213> Artificial Sequence

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<223> Synthetic oligonucleotide probe

<400> 82

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gcac 54

<210> 83

<211> 3906

<212> DNA

<213> Homo sapiens

<400> 83

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gaaaaa 3906

<210> 84
<211> 867
<212> PRT
<213> Homo sapiens

<400> 84

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Phe	Ser	Leu	Leu	Gly	Gly	Ser	Ser	Ala	Phe	Leu	Ser	His	His	Arg	
				20					25					30	
Leu	Lys	Gly	Arg	Phe	Gln	Arg	Asp	Arg	Arg	Asn	Ile	Arg	Pro	Asn	
				35					40					45	
Ile	Ile	Leu	Val	Leu	Thr	Asp	Asp	Gln	Asp	Val	Glu	Leu	Gly	Ser	
				50					55					60	
Met	Gln	Val	Met	Asn	Lys	Thr	Arg	Arg	Ile	Met	Glu	Gln	Gly	Gly	
				65					70					75	
Ala	His	Phe	Ile	Asn	Ala	Phe	Val	Thr	Thr	Pro	Met	Cys	Cys	Pro	
				80					85					90	
Ser	Arg	Ser	Ser	Ile	Leu	Thr	Gly	Lys	Tyr	Val	His	Asn	His	Asn	
				95					100					105	
Thr	Tyr	Thr	Asn	Asn	Glu	Asn	Cys	Ser	Ser	Pro	Ser	Trp	Gln	Ala	
				110					115					120	
Gln	His	Glu	Ser	Arg	Thr	Phe	Ala	Val	Tyr	Leu	Asn	Ser	Thr	Gly	
				125					130					135	
Tyr	Arg	Thr	Ala	Phe	Phe	Gly	Lys	Tyr	Leu	Asn	Glu	Tyr	Asn	Gly	
				140					145					150	
Ser	Tyr	Val	Pro	Pro	Gly	Trp	Lys	Glu	Trp	Val	Gly	Leu	Leu	Lys	
				155					160					165	
Asn	Ser	Arg	Phe	Tyr	Asn	Tyr	Thr	Leu	Cys	Arg	Asn	Gly	Val	Lys	
				170					175					180	
Glu	Lys	His	Gly	Ser	Asp	Tyr	Ser	Lys	Asp	Tyr	Leu	Thr	Asp	Leu	
				185					190					195	
Ile	Thr	Asn	Asp	Ser	Val	Ser	Phe	Phe	Arg	Thr	Ser	Lys	Lys	Met	
				200					205					210	
Tyr	Pro	His	Arg	Pro	Val	Leu	Met	Val	Ile	Ser	His	Ala	Ala	Pro	
				215					220					225	
His	Gly	Pro	Glu	Asp	Ser	Ala	Pro	Gln	Tyr	Ser	Arg	Leu	Phe	Pro	
				230					235					240	
Asn	Ala	Ser	Gln	His	Ile	Thr	Pro	Ser	Tyr	Asn	Tyr	Ala	Pro	Asn	
				245					250					255	
Pro	Asp	Lys	His	Trp	Ile	Met	Arg	Tyr	Thr	Gly	Pro	Met	Lys	Pro	
				260					265					270	
Ile	His	Met	Glu	Phe	Thr	Asn	Met	Leu	Gln	Arg	Lys	Arg	Leu	Gln	
				275					280					285	

Thr	Leu	Met	Ser	Val	Asp	Asp	Ser	Met	Glu	Thr	Ile	Tyr	Asn	Met	
				290					295					300	
Leu	Val	Glu	Thr	Gly	Glu	Leu	Asp	Asn	Thr	Tyr	Ile	Val	Tyr	Thr	
				305					310					315	
Ala	Asp	His	Gly	Tyr	His	Ile	Gly	Gln	Phe	Gly	Leu	Val	Lys	Gly	
				320					325					330	
Lys	Ser	Met	Pro	Tyr	Glu	Phe	Asp	Ile	Arg	Val	Pro	Phe	Tyr	Val	
				335					340					345	
Arg	Gly	Pro	Asn	Val	Glu	Ala	Gly	Cys	Leu	Asn	Pro	His	Ile	Val	
				350					355					360	
Leu	Asn	Ile	Asp	Leu	Ala	Pro	Thr	Ile	Leu	Asp	Ile	Ala	Gly	Leu	
				365					370					375	
Asp	Ile	Pro	Ala	Asp	Met	Asp	Gly	Lys	Ser	Ile	Leu	Lys	Leu	Leu	
				380					385					390	
Asp	Thr	Glu	Arg	Pro	Val	Asn	Arg	Phe	His	Leu	Lys	Lys	Lys	Met	
				395					400					405	
Arg	Val	Trp	Arg	Asp	Ser	Phe	Leu	Val	Glu	Arg	Gly	Lys	Leu	Leu	
				410					415					420	
His	Lys	Arg	Asp	Asn	Asp	Lys	Val	Asp	Ala	Gln	Glu	Glu	Asn	Phe	
				425					430					435	
Leu	Pro	Lys	Tyr	Gln	Arg	Val	Lys	Asp	Leu	Cys	Gln	Arg	Ala	Glu	
				440					445					450	
Tyr	Gln	Thr	Ala	Cys	Glu	Gln	Leu	Gly	Gln	Lys	Trp	Gln	Cys	Val	
				455					460					465	
Glu	Asp	Ala	Thr	Gly	Lys	Leu	Lys	Leu	His	Lys	Cys	Lys	Gly	Pro	
				470					475					480	
Met	Arg	Leu	Gly	Gly	Ser	Arg	Ala	Leu	Ser	Asn	Leu	Val	Pro	Lys	
				485					490					495	
Tyr	Tyr	Gly	Gln	Gly	Ser	Glu	Ala	Cys	Thr	Cys	Asp	Ser	Gly	Asp	
				500					505					510	
Tyr	Lys	Leu	Ser	Leu	Ala	Gly	Arg	Arg	Lys	Lys	Leu	Phe	Lys	Lys	
				515					520					525	
Lys	Tyr	Lys	Ala	Ser	Tyr	Val	Arg	Ser	Arg	Ser	Ile	Arg	Ser	Val	
				530					535					540	
Ala	Ile	Glu	Val	Asp	Gly	Arg	Val	Tyr	His	Val	Gly	Leu	Gly	Asp	
				545					550					555	
Ala	Ala	Gln	Pro	Arg	Asn	Leu	Thr	Lys	Arg	His	Trp	Pro	Gly	Ala	
				560					565					570	
Pro	Glu	Asp	Gln	Asp	Asp	Lys	Asp	Gly	Gly	Asp	Phe	Ser	Gly	Thr	

094193 032201

575										580					585				
Gly	Gly	Leu	Pro	Asp	Tyr	Ser	Ala	Ala	Asn	Pro	Ile	Lys	Val	Thr					
				590					595					600					
His	Arg	Cys	Tyr	Ile	Leu	Glu	Asn	Asp	Thr	Val	Gln	Cys	Asp	Leu					
				605					610					615					
Asp	Leu	Tyr	Lys	Ser	Leu	Gln	Ala	Trp	Lys	Asp	His	Lys	Leu	His					
				620					625					630					
Ile	Asp	His	Glu	Ile	Glu	Thr	Leu	Gln	Asn	Lys	Ile	Lys	Asn	Leu					
				635					640					645					
Arg	Glu	Val	Arg	Gly	His	Leu	Lys	Lys	Lys	Arg	Pro	Glu	Glu	Cys					
				650					655					660					
Asp	Cys	His	Lys	Ile	Ser	Tyr	His	Thr	Gln	His	Lys	Gly	Arg	Leu					
				665					670					675					
Lys	His	Arg	Gly	Ser	Ser	Leu	His	Pro	Phe	Arg	Lys	Gly	Leu	Gln					
				680					685					690					
Glu	Lys	Asp	Lys	Val	Trp	Leu	Leu	Arg	Glu	Gln	Lys	Arg	Lys	Lys					
				695					700					705					
Lys	Leu	Arg	Lys	Leu	Leu	Lys	Arg	Leu	Gln	Asn	Asn	Asp	Thr	Cys					
				710					715					720					
Ser	Met	Pro	Gly	Leu	Thr	Cys	Phe	Thr	His	Asp	Asn	Gln	His	Trp					
				725					730					735					
Gln	Thr	Ala	Pro	Phe	Trp	Thr	Leu	Gly	Pro	Phe	Cys	Ala	Cys	Thr					
				740					745					750					
Ser	Ala	Asn	Asn	Asn	Thr	Tyr	Trp	Cys	Met	Arg	Thr	Ile	Asn	Glu					
				755					760					765					
Thr	His	Asn	Phe	Leu	Phe	Cys	Glu	Phe	Ala	Thr	Gly	Phe	Leu	Glu					
				770					775					780					
Tyr	Phe	Asp	Leu	Asn	Thr	Asp	Pro	Tyr	Gln	Leu	Met	Asn	Ala	Val					
				785					790					795					
Asn	Thr	Leu	Asp	Arg	Asp	Val	Leu	Asn	Gln	Leu	His	Val	Gln	Leu					
				800					805					810					
Met	Glu	Leu	Arg	Ser	Cys	Lys	Gly	Tyr	Lys	Gln	Cys	Asn	Pro	Arg					
				815					820					825					
Thr	Arg	Asn	Met	Asp	Leu	Asp	Gly	Gly	Ser	Tyr	Glu	Gln	Tyr	Arg					
				830					835					840					
Gln	Phe	Gln	Arg	Arg	Lys	Trp	Pro	Glu	Met	Lys	Arg	Pro	Ser	Ser					
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Lys	Ser	Leu	Gly	Gln	Leu	Trp	Glu	Gly	Trp	Glu	Gly								
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 <223> Synthetic oligonucleotide probe

 <400> 85
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 <210> 86
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 <220>
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 <400> 86
 ggccagctat ctccgcag 18

 <210> 87
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 <212> DNA
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 <220>
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 <400> 87
 aagggcctgc aagagaag 18

 <210> 88
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 <223> Synthetic oligonucleotide probe

 <400> 88
 cactgggaca actgtggg 18

 <210> 89
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 <220>
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 <400> 89
 cagaggcaac gtggagag 18

 <210> 90
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 <212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 90

aagtattgtc atacagtgtt c 21

<210> 91

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 91

tagtacttgg gcacgaggtt ggag 24

<210> 92

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 92

tcataccaac tgctggtcat tggc 24

<210> 93

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 93

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<210> 94

<211> 971

<212> DNA

<213> Homo sapiens

<400> 94

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acggcaggac tgtgacgtgg agaggaaccg tacagctgca gggggaaacc 250

gagtccgccg ggcccagcct tggcccttcc ggcggcgggg ccacctggga 300

atctttcacc atcacggtca tcttgccac gtatctcatg tgccgaatgt 350
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 caggacaagt ggaccccatg tttccatgtg gaaggatgca tctctggggt 550
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 ctctcatca ggctgctgca ggcctctggc gggcagggca ctgggagagg 850
 ccctgagaat gtccttttgg tttggagaag gcagtgtgag gctgcacagt 900
 caattcatcg gtgccttagt ccaagaaaat aaaaaccact aagaagcttt 950
 aaaaaaaaaa aaaaaaaaaa a 971

<210> 95
 <211> 115
 <212> PRT
 <213> Homo sapiens

<400> 95
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 20 25 30
 Cys Leu Phe His Gly Arg Gln Asp Cys Asp Val Glu Arg Asn Arg
 35 40 45
 Thr Ala Ala Gly Gly Asn Arg Val Arg Arg Ala Gln Pro Trp Pro
 50 55 60
 Phe Arg Arg Arg Gly His Leu Gly Ile Phe His His His Arg His
 65 70 75
 Pro Gly His Val Ser His Val Pro Asn Val Gly Leu His His His
 80 85 90
 His His Pro Arg His Thr Pro His His Leu His His His His His
 95 100 105
 Pro His Arg His His Pro Arg His Ala Arg
 110 115

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aaaaaaaaaa aa 1312

<210> 97

<211> 313

<212> PRT

<213> Homo sapiens

<400> 97

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Leu	Leu	Leu	Leu	Thr	Leu	Leu	Ala	Phe	Ala	Gly	Tyr	Ser	Gly	Leu	
				20					25					30	
Leu	Ala	Gly	Val	Glu	Val	Ser	Ala	Gly	Ser	Pro	Pro	Ile	Arg	Asn	
				35					40					45	
Val	Thr	Val	Ala	Tyr	Lys	Phe	His	Met	Gly	Leu	Tyr	Gly	Glu	Thr	
				50					55					60	
Gly	Arg	Leu	Phe	Thr	Glu	Ser	Cys	Ser	Ile	Ser	Pro	Lys	Leu	Arg	
				65					70					75	
Ser	Ile	Ala	Val	Tyr	Tyr	Asp	Asn	Pro	His	Met	Val	Pro	Pro	Asp	
				80					85					90	
Lys	Cys	Arg	Cys	Ala	Val	Gly	Ser	Ile	Leu	Ser	Glu	Gly	Glu	Glu	
				95					100					105	
Ser	Pro	Ser	Pro	Glu	Leu	Ile	Asp	Leu	Tyr	Gln	Lys	Phe	Gly	Phe	
				110					115					120	
Lys	Val	Phe	Ser	Phe	Pro	Ala	Pro	Ser	His	Val	Val	Thr	Ala	Thr	
				125					130					135	
Phe	Pro	Tyr	Thr	Thr	Ile	Leu	Ser	Ile	Trp	Leu	Ala	Thr	Arg	Arg	
				140					145					150	
Val	His	Pro	Ala	Leu	Asp	Thr	Tyr	Ile	Lys	Glu	Arg	Lys	Leu	Cys	
				155					160					165	
Ala	Tyr	Pro	Arg	Leu	Glu	Ile	Tyr	Gln	Glu	Asp	Gln	Ile	His	Phe	
				170					175					180	
Met	Cys	Pro	Leu	Ala	Arg	Gln	Gly	Asp	Phe	Tyr	Val	Pro	Glu	Met	
				185					190					195	
Lys	Glu	Thr	Glu	Trp	Lys	Trp	Arg	Gly	Leu	Val	Glu	Ala	Ile	Asp	
				200					205					210	
Thr	Gln	Val	Asp	Gly	Thr	Gly	Ala	Asp	Thr	Met	Ser	Asp	Thr	Ser	
				215					220					225	
Ser	Val	Ser	Leu	Glu	Val	Ser	Pro	Gly	Ser	Arg	Glu	Thr	Ser	Ala	
				230					235					240	
Ala	Thr	Leu	Ser	Pro	Gly	Ala	Ser	Ser	Arg	Gly	Trp	Asp	Asp	Gly	
				245					250					255	

Asp Thr Arg Ser Glu His Ser Tyr Ser Glu Ser Gly Ala Ser Gly
260 265 270

Ser Ser Phe Glu Glu Leu Asp Leu Glu Gly Glu Gly Pro Leu Gly
275 280 285

Glu Ser Arg Leu Asp Pro Gly Thr Glu Pro Leu Gly Thr Thr Lys
290 295 300

Trp Leu Trp Glu Pro Thr Ala Pro Glu Lys Gly Lys Glu
305 310

<210> 98
<211> 725
<212> DNA
<213> Homo sapiens

<400> 98
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ctgaggctgg gctcgaaacc gaaagtcccg tccggaccct ccaagtggag 200
accctggtgg agccccaga accatgtgcc gagcccgtg cttttggaga 250
cacgcttcac atacactaca cggaagctt ggtagatgga cgtattattg 300
acacctcct gaccagagac cctctggtta tagaacttgg ccaaaagcag 350
gtgattccag gtctggagca gagtcttctc gacatgtgtg tgggagagaa 400
gcgaagggca atcattcctt ctacttggc ctatggaaaa cggggatttc 450
caccatctgt ccagcggat gcagtgggtg agtatgacgt ggagctgatt 500
gcactaatcc gagccaacta ctggctaaag ctggtgaagg gcattttgcc 550
tctggtaggg atggccatgg tgccagccct cctgggcctc attgggtatc 600
acctatacag aaaggccaat agacccaaag tctccaaaaa gaagctcaag 650
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aaaacttaaa aaaaaaaaaa aaaaa 725

<210> 99
<211> 201
<212> PRT
<213> Homo sapiens

<400> 99
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20										25					30				
Thr	Glu	Ser	Pro	Val	Arg	Thr	Leu	Gln	Val	Glu	Thr	Leu	Val	Glu					
				35					40					45					
Pro	Pro	Glu	Pro	Cys	Ala	Glu	Pro	Ala	Ala	Phe	Gly	Asp	Thr	Leu					
				50					55					60					
His	Ile	His	Tyr	Thr	Gly	Ser	Leu	Val	Asp	Gly	Arg	Ile	Ile	Asp					
				65					70					75					
Thr	Ser	Leu	Thr	Arg	Asp	Pro	Leu	Val	Ile	Glu	Leu	Gly	Gln	Lys					
				80					85					90					
Gln	Val	Ile	Pro	Gly	Leu	Glu	Gln	Ser	Leu	Leu	Asp	Met	Cys	Val					
				95					100					105					
Gly	Glu	Lys	Arg	Arg	Ala	Ile	Ile	Pro	Ser	His	Leu	Ala	Tyr	Gly					
				110					115					120					
Lys	Arg	Gly	Phe	Pro	Pro	Ser	Val	Pro	Ala	Asp	Ala	Val	Val	Gln					
				125					130					135					
Tyr	Asp	Val	Glu	Leu	Ile	Ala	Leu	Ile	Arg	Ala	Asn	Tyr	Trp	Leu					
				140					145					150					
Lys	Leu	Val	Lys	Gly	Ile	Leu	Pro	Leu	Val	Gly	Met	Ala	Met	Val					
				155					160					165					
Pro	Ala	Leu	Leu	Gly	Leu	Ile	Gly	Tyr	His	Leu	Tyr	Arg	Lys	Ala					
				170					175					180					
Asn	Arg	Pro	Lys	Val	Ser	Lys	Lys	Lys	Leu	Lys	Glu	Glu	Lys	Arg					
				185					190					195					
Asn	Lys	Ser	Lys	Lys	Lys														
				200															

<210> 100

<211> 705

<212> DNA

<213> Homo sapiens

<400> 100

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cgctccatct gctgctgctg ctgctgctca gtgcggcggt gtgccgggct 150

gaggctgggc tcgaaaccga aagtcccgtc cggaccctcc aagtggagac 200

cctggtggag cccccagaac catgtgccga gcccgctgct tttggagaca 250

cgcttcacat acactacacg ggaagcttgg tagatggacg tattattgac 300

acctccctga ccagagaccc tctggttata gaacttggcc aaaagcaggt 350

gattccaggt ctggagcaga gtcttctcga catgtgtgtg ggagagaagc 400
gaagggcaat cattccttct cacttggcct atggaaaacg gggatttcca 450
ccatctgtcc cagcggatgc agtgggtgcag tatgacgtgg agctgattgc 500
actaatccga gccaaactact ggctaaagct ggtgaagggc attttgcctc 550
tggtagggat ggccatggtg ccaccctcct gggcctcatt gggatatcacc 600
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gagaaacgaa acaagagcaa aaagaaataa taaataataa attttaaaaa 700
actta 705

<210> 101
<211> 543
<212> DNA
<213> Homo sapiens

<400> 101
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accctctggt tatagaactt ggccaaaagc aggtgattcc aggtctggag 200
cagagtcttc tcgacatgtg tgtgggagag aagcgaaggg caatcattcc 250
ttctcacttg gcctatggaa aacgggggatt tccaccatct gtcccagcgg 300
atgcagtggg gcagtatgac gtggagctga ttgactaat ccgagccaac 350
tactggctaa agctggtgaa gggcattttg cctctggtag ggatggccat 400
ggtgccagcc ctcttgggcc tcattgggta tcacctatac agaaaggcca 450
atagacccaa agtctccaaa aagaagctca aggaagagaa acgaaacaag 500
agcaaaaaga aataataaat aataaatttt aaaaaactta aaa 543

<210> 102
<211> 1316
<212> DNA
<213> Homo sapiens

<400> 102
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ccactgcacg acggggctgg actgacctga aaaaaatgtc tggatttcta 150
gagggcttga gatgctcaga atgcattgac tggggggaaa agcgcaatac 200

tattgcttcc attgctgctg gtgtactatt ttttacaggc tgggtggatta 250
tcatagatgc agctgttatt tatcccacca tgaaagattt caaccactca 300
taccatgcct gtggtgttat agcaaccata gccttcctaa tgattaatgc 350
agtatcgaat ggacaagtcc gaggtgatag ttacagtga ggttgtctgg 400
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<210> 103

<211> 157

<212> PRT

<213> Homo sapiens

<400> 103

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Val Ile Ala Thr Ile Ala Phe Leu Met Ile Asn Ala Val Ser Asn
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Gly Gln Val Arg Gly Asp Ser Tyr Ser Glu Gly Cys Leu Gly Gln
80 85 90
Thr Gly Ala Arg Ile Trp Leu Phe Val Gly Phe Met Leu Ala Phe
95 100 105
Gly Ser Leu Ile Ala Ser Met Trp Ile Leu Phe Gly Gly Tyr Val
110 115 120
Ala Lys Glu Lys Asp Ile Val Tyr Pro Gly Ile Ala Val Phe Phe
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Arg Thr Glu Asp Leu Trp Gln
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<211> 545
<212> DNA
<213> Homo sapiens

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<210> 105
<211> 490
<212> DNA

[illegible]

<221> unsure

<223> unknown base

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ccctggaatt  gntgtatttt  tccagaatgc  cttcatcttt  tttggagggc  450

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<211> 466

<213> Homo sapiens

<221> unsure

<223> unknown base

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 <213> Homo sapiens

 <220>
 <221> unsure
 <222> 52, 67, 70, 78, 105, 144, 150, 209, 266, 268, 282, 310, 331, 356
 <223> unknown base

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 <222> 12, 25, 65, 130, 437, 537
 <223> unknown base

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[illegible]

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<210> 113
 <211> 610
 <212> PRT
 <213> Homo sapiens

<400> 113
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Thr Asp Lys Glu Ala Arg Lys Lys Val Leu Lys Gln Ala Phe Ser	50	55	60
Ala Asn Gln Val Pro Glu Lys Leu Asp Val Val Val Ile Gly Ser	65	70	75
Gly Phe Gly Gly Leu Ala Ala Ala Ala Ile Leu Ala Lys Ala Gly	80	85	90
Lys Arg Val Leu Val Leu Glu Gln His Thr Lys Ala Gly Gly Cys	95	100	105
Cys His Thr Phe Gly Lys Asn Gly Leu Glu Phe Asp Thr Gly Ile	110	115	120
His Tyr Ile Gly Arg Met Glu Glu Gly Ser Ile Gly Arg Phe Ile	125	130	135
Leu Asp Gln Ile Thr Glu Gly Gln Leu Asp Trp Ala Pro Leu Ser	140	145	150
Ser Pro Phe Asp Ile Met Val Leu Glu Gly Pro Asn Gly Arg Lys	155	160	165
Glu Tyr Pro Met Tyr Ser Gly Glu Lys Ala Tyr Ile Gln Gly Leu	170	175	180
Lys Glu Lys Phe Pro Gln Glu Glu Ala Ile Ile Asp Lys Tyr Ile	185	190	195
Lys Leu Val Lys Val Val Ser Ser Gly Ala Pro His Ala Ile Leu	200	205	210
Leu Lys Phe Leu Pro Leu Pro Val Val Gln Leu Leu Asp Arg Cys	215	220	225
Gly Leu Leu Thr Arg Phe Ser Pro Phe Leu Gln Ala Ser Thr Gln	230	235	240
Ser Leu Ala Glu Val Leu Gln Gln Leu Gly Ala Ser Ser Glu Leu	245	250	255
Gln Ala Val Leu Ser Tyr Ile Phe Pro Thr Tyr Gly Val Thr Pro	260	265	270
Asn His Ser Ala Phe Ser Met His Ala Leu Leu Val Asn His Tyr	275	280	285
Met Lys Gly Gly Phe Tyr Pro Arg Gly Gly Ser Ser Glu Ile Ala	290	295	300
Phe His Thr Ile Pro Val Ile Gln Arg Ala Gly Gly Ala Val Leu	305	310	315

Thr	Lys	Ala	Thr	Val	Gln	Ser	Val	Leu	Leu	Asp	Ser	Ala	Gly	Lys	
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Ala	Cys	Gly	Val	Ser	Val	Lys	Lys	Gly	His	Glu	Leu	Val	Asn	Ile	
				335					340					345	
Tyr	Cys	Pro	Ile	Val	Val	Ser	Asn	Ala	Gly	Leu	Phe	Asn	Thr	Tyr	
				350					355					360	
Glu	His	Leu	Leu	Pro	Gly	Asn	Ala	Arg	Cys	Leu	Pro	Gly	Val	Lys	
				365					370					375	
Gln	Gln	Leu	Gly	Thr	Val	Arg	Pro	Gly	Leu	Gly	Met	Thr	Ser	Val	
				380					385					390	
Phe	Ile	Cys	Leu	Arg	Gly	Thr	Lys	Glu	Asp	Leu	His	Leu	Pro	Ser	
				395					400					405	
Thr	Asn	Tyr	Tyr	Val	Tyr	Tyr	Asp	Thr	Asp	Met	Asp	Gln	Ala	Met	
				410					415					420	
Glu	Arg	Tyr	Val	Ser	Met	Pro	Arg	Glu	Glu	Ala	Ala	Glu	His	Ile	
				425					430					435	
Pro	Leu	Leu	Phe	Phe	Ala	Phe	Pro	Ser	Ala	Lys	Asp	Pro	Thr	Trp	
				440					445					450	
Glu	Asp	Arg	Phe	Pro	Gly	Arg	Ser	Thr	Met	Ile	Met	Leu	Ile	Pro	
				455					460					465	
Thr	Ala	Tyr	Glu	Trp	Phe	Glu	Glu	Trp	Gln	Ala	Glu	Leu	Lys	Gly	
				470					475					480	
Lys	Arg	Gly	Ser	Asp	Tyr	Glu	Thr	Phe	Lys	Asn	Ser	Phe	Val	Glu	
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Ala	Ser	Met	Ser	Val	Val	Leu	Lys	Leu	Phe	Pro	Gln	Leu	Glu	Gly	
				500					505					510	
Lys	Val	Glu	Ser	Val	Thr	Ala	Gly	Ser	Pro	Leu	Thr	Asn	Gln	Phe	
				515					520					525	
Tyr	Leu	Ala	Ala	Pro	Arg	Gly	Ala	Cys	Tyr	Gly	Ala	Asp	His	Asp	
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Leu	Gly	Arg	Leu	His	Pro	Cys	Val	Met	Ala	Ser	Leu	Arg	Ala	Gln	
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Ser	Pro	Ile	Pro	Asn	Leu	Tyr	Leu	Thr	Gly	Gln	Asp	Ile	Phe	Thr	
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Cys	Gly	Leu	Val	Gly	Ala	Leu	Gln	Gly	Ala	Leu	Leu	Cys	Ser	Ser	
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Ala	Ile	Leu	Lys	Arg	Asn	Leu	Tyr	Ser	Asp	Leu	Lys	Asn	Leu	Asp	
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Ser	Arg	Ile	Arg	Ala	Gln	Lys	Lys	Lys	Asn						

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 <211> 1701
 <212> DNA
 <213> Homo sapiens

<400> 114
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<210> 115
 <211> 301
 <212> PRT
 <213> Homo sapiens

<400> 115
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 35 40 45
 Lys Asp His Thr Thr Ala Gly Arg Val Val Ala Gly Gln Ile Phe
 50 55 60
 Leu Asp Ser Glu Glu Ser Glu Leu Glu Ser Ser Ile Gln Glu Glu
 65 70 75
 Glu Asp Ser Leu Lys Ser Gln Glu Gly Glu Ser Val Thr Glu Asp
 80 85 90
 Ile Ser Phe Leu Glu Ser Pro Asn Pro Glu Asn Lys Asp Tyr Glu
 95 100 105
 Glu Pro Lys Lys Val Arg Lys Pro Ala Leu Thr Ala Ile Glu Gly
 110 115 120
 Thr Ala His Gly Glu Pro Cys His Phe Pro Phe Leu Phe Leu Asp
 125 130 135
 Lys Glu Tyr Asp Glu Cys Thr Ser Asp Gly Arg Glu Asp Gly Arg
 140 145 150
 Leu Trp Cys Ala Thr Thr Tyr Asp Tyr Lys Ala Asp Glu Lys Trp
 155 160 165

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Gln	Glu	Ala	Glu	Met	Met	Tyr	Gln	Thr	Gly	Met	Lys	Ile	Leu	Asn
				185					190					195
Gly	Ser	Asn	Lys	Lys	Ser	Gln	Lys	Arg	Glu	Ala	Tyr	Arg	Tyr	Leu
				200					205					210
Gln	Lys	Ala	Ala	Ser	Met	Asn	His	Thr	Lys	Ala	Leu	Glu	Arg	Val
				215					220					225
Ser	Tyr	Ala	Leu	Leu	Phe	Gly	Asp	Tyr	Leu	Pro	Gln	Asn	Ile	Gln
				230					235					240
Ala	Ala	Arg	Glu	Met	Phe	Glu	Lys	Leu	Thr	Glu	Glu	Gly	Ser	Pro
				245					250					255
Lys	Gly	Gln	Thr	Ala	Leu	Gly	Phe	Leu	Tyr	Ala	Ser	Gly	Leu	Gly
				260					265					270
Val	Asn	Ser	Ser	Gln	Ala	Lys	Ala	Leu	Val	Tyr	Tyr	Thr	Phe	Gly
				275					280					285
Ala	Leu	Gly	Gly	Asn	Leu	Ile	Ala	His	Met	Val	Leu	Val	Ser	Arg
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Leu

<210> 116
 <211> 584
 <212> DNA
 <213> Homo sapiens

<400> 116
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09476

<213> Homo sapiens

Phe Ser Pro

<213> Homo sapiens

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atgtatgcac acacatgcgc gcacacgtgc tccctgaagg cacacgtacg 1900

SECRET

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aa 3402

<210> 119

<211> 504

<212> PRT

<213> Homo sapiens

<400> 119

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20 25 30

Met Ala Asp Lys Val Val Pro Arg Gln Val Ala Arg Leu Gly Arg
35 40 45

Thr Val Arg Leu Gln Cys Pro Val Glu Gly Asp Pro Pro Pro Leu
50 55 60

Thr Met Trp Thr Lys Asp Gly Arg Thr Ile His Ser Gly Trp Ser
65 70 75

Arg Phe Arg Val Leu Pro Gln Gly Leu Lys Val Lys Gln Val Glu
80 85 90

Arg Glu Asp Ala Gly Val Tyr Val Cys Lys Ala Thr Asn Gly Phe
95 100 105

Gly Ser Leu Ser Val Asn Tyr Thr Leu Val Val Leu Asp Asp Ile
110 115 120

Ser Pro Gly Lys Glu Ser Leu Gly Pro Asp Ser Ser Ser Gly Gly
125 130 135

Gln Glu Asp Pro Ala Ser Gln Gln Trp Ala Arg Pro Arg Phe Thr
140 145 150

Gln Pro Ser Lys Met Arg Arg Arg Val Ile Ala Arg Pro Val Gly
155 160 165

Ser Ser Val Arg Leu Lys Cys Val Ala Ser Gly His Pro Arg Pro
170 175 180

Asp Ile Thr Trp Met Lys Asp Asp Gln Ala Leu Thr Arg Pro Glu
185 190 195

Ala Ala Glu Pro Arg Lys Lys Lys Trp Thr Leu Ser Leu Lys Asn
200 205 210

Leu Arg Pro Glu Asp Ser Gly Lys Tyr Thr Cys Arg Val Ser Asn
215 220 225

Arg Ala Gly Ala Ile Asn Ala Thr Tyr Lys Val Asp Val Ile Gln
230 235 240

09419026460

Arg	Thr	Arg	Ser	Lys	Pro	Val	Leu	Thr	Gly	Thr	His	Pro	Val	Asn	
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				260					265					270	
Arg	Ser	Asp	Val	Lys	Pro	Val	Ile	Gln	Trp	Leu	Lys	Arg	Val	Glu	
				275					280					285	
Tyr	Gly	Ala	Glu	Gly	Arg	His	Asn	Ser	Thr	Ile	Asp	Val	Gly	Gly	
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Gln	Lys	Phe	Val	Val	Leu	Pro	Thr	Gly	Asp	Val	Trp	Ser	Arg	Pro	
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Asp	Gly	Ser	Tyr	Leu	Asn	Lys	Leu	Leu	Ile	Thr	Arg	Ala	Arg	Gln	
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Asp	Asp	Ala	Gly	Met	Tyr	Ile	Cys	Leu	Gly	Ala	Asn	Thr	Met	Gly	
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Tyr	Ser	Phe	Arg	Ser	Ala	Phe	Leu	Thr	Val	Leu	Pro	Asp	Pro	Lys	
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Pro	Pro	Gly	Pro	Pro	Val	Ala	Ser	Ser	Ser	Ser	Ala	Thr	Ser	Leu	
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Pro	Trp	Pro	Val	Val	Ile	Gly	Ile	Pro	Ala	Gly	Ala	Val	Phe	Ile	
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Leu	Gly	Thr	Leu	Leu	Leu	Trp	Leu	Cys	Gln	Ala	Gln	Lys	Lys	Pro	
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Cys	Thr	Pro	Ala	Pro	Ala	Pro	Pro	Leu	Pro	Gly	His	Arg	Pro	Pro	
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Gly	Thr	Ala	Arg	Asp	Arg	Ser	Gly	Asp	Lys	Asp	Leu	Pro	Ser	Leu	
				425					430					435	
Ala	Ala	Leu	Ser	Ala	Gly	Pro	Gly	Val	Gly	Leu	Cys	Glu	Glu	His	
				440					445					450	
Gly	Ser	Pro	Ala	Ala	Pro	Gln	His	Leu	Leu	Gly	Pro	Gly	Pro	Val	
				455					460					465	
Ala	Gly	Pro	Lys	Leu	Tyr	Pro	Lys	Leu	Tyr	Thr	Asp	Ile	His	Thr	
				470					475					480	
His	Thr	His	Thr	His	Ser	His	Thr	His	Ser	His	Val	Glu	Gly	Lys	
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Val	His	Gln	His	Ile	His	Tyr	Gln	Cys							
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<210> 120

<211> 20

<212> DNA

<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

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cgagatgacg ccgagccccc 20

<210> 121
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<212> DNA
<213> Artificial Sequence

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<223> Synthetic oligonucleotide probe

<400> 121
cggttcgaca cgcggcaggt g 21

<210> 122
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<212> DNA
<213> Artificial Sequence

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<400> 122
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<210> 123
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<212> DNA
<213> Homo sapiens

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gcctgggtgt tctccttcct ggtcctggaa gtcacatctg tggtggggag 200
acagacgatg ctacccagt cagtaagaag agtccagcct gggaagaaga 250
acccagcat ctttgccaag cctgccgaca ccctggagag ccctggtgag 300
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<210> 124
 <211> 1184
 <212> PRT
 <213> Homo sapiens

<400> 124
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 Arg Arg Val Gln Pro Gly Lys Lys Asn Pro Ser Ile Phe Ala Lys
 35 40 45
 Pro Ala Asp Thr Leu Glu Ser Pro Gly Glu Trp Thr Thr Trp Phe
 50 55 60
 Asn Ile Asp Tyr Pro Gly Gly Lys Gly Asp Tyr Glu Arg Leu Asp
 65 70 75

Ala	Ile	Arg	Phe	Tyr 80	Tyr	Gly	Asp	Arg	Val 85	Cys	Ala	Arg	Pro	Leu 90
Arg	Leu	Glu	Ala	Arg 95	Thr	Thr	Asp	Trp	Thr 100	Pro	Ala	Gly	Ser	Thr 105
Gly	Gln	Val	Val	His 110	Gly	Ser	Pro	Arg	Glu 115	Gly	Phe	Trp	Cys	Leu 120
Asn	Arg	Glu	Gln	Arg 125	Pro	Gly	Gln	Asn	Cys 130	Ser	Asn	Tyr	Thr	Val 135
Arg	Phe	Leu	Cys	Pro 140	Pro	Gly	Ser	Leu	Arg 145	Arg	Asp	Thr	Glu	Arg 150
Ile	Trp	Ser	Pro	Trp 155	Ser	Pro	Trp	Ser	Lys 160	Cys	Ser	Ala	Ala	Cys 165
Gly	Gln	Thr	Gly	Val 170	Gln	Thr	Arg	Thr	Arg 175	Ile	Cys	Leu	Ala	Glu 180
Met	Val	Ser	Leu	Cys 185	Ser	Glu	Ala	Ser	Glu 190	Glu	Gly	Gln	His	Cys 195
Met	Gly	Gln	Asp	Cys 200	Thr	Ala	Cys	Asp	Leu 205	Thr	Cys	Pro	Met	Gly 210
Gln	Val	Asn	Ala	Asp 215	Cys	Asp	Ala	Cys	Met 220	Cys	Gln	Asp	Phe	Met 225
Leu	His	Gly	Ala	Val 230	Ser	Leu	Pro	Gly	Gly 235	Ala	Pro	Ala	Ser	Gly 240
Ala	Ala	Ile	Tyr	Leu 245	Leu	Thr	Lys	Thr	Pro 250	Lys	Leu	Leu	Thr	Gln 255
Thr	Asp	Ser	Asp	Gly 260	Arg	Phe	Arg	Ile	Pro 265	Gly	Leu	Cys	Pro	Asp 270
Gly	Lys	Ser	Ile	Leu 275	Lys	Ile	Thr	Lys	Val 280	Lys	Phe	Ala	Pro	Ile 285
Val	Leu	Thr	Met	Pro 290	Lys	Thr	Ser	Leu	Lys 295	Ala	Ala	Thr	Ile	Lys 300
Ala	Glu	Phe	Val	Arg 305	Ala	Glu	Thr	Pro	Tyr 310	Met	Val	Met	Asn	Pro 315
Glu	Thr	Lys	Ala	Arg 320	Arg	Ala	Gly	Gln	Ser 325	Val	Ser	Leu	Cys	Cys 330
Lys	Ala	Thr	Gly	Lys 335	Pro	Arg	Pro	Asp	Lys 340	Tyr	Phe	Trp	Tyr	His 345
Asn	Asp	Thr	Leu	Leu 350	Asp	Pro	Ser	Leu	Tyr 355	Lys	His	Glu	Ser	Lys 360
Leu	Val	Leu	Arg	Lys	Leu	Gln	Gln	His	Gln	Ala	Gly	Glu	Tyr	Phe

				365						370						375	
Cys	Lys	Ala	Gln	Ser	Asp	Ala	Gly	Ala	Val	Lys	Ser	Lys	Val	Ala			
				380					385					390			
Gln	Leu	Ile	Val	Thr	Ala	Ser	Asp	Glu	Thr	Pro	Cys	Asn	Pro	Val			
				395					400					405			
Pro	Glu	Ser	Tyr	Leu	Ile	Arg	Leu	Pro	His	Asp	Cys	Phe	Gln	Asn			
				410					415					420			
Ala	Thr	Asn	Ser	Phe	Tyr	Tyr	Asp	Val	Gly	Arg	Cys	Pro	Val	Lys			
				425					430					435			
Thr	Cys	Ala	Gly	Gln	Gln	Asp	Asn	Gly	Ile	Arg	Cys	Arg	Asp	Ala			
				440					445					450			
Val	Gln	Asn	Cys	Cys	Gly	Ile	Ser	Lys	Thr	Glu	Glu	Arg	Glu	Ile			
				455					460					465			
Gln	Cys	Ser	Gly	Tyr	Thr	Leu	Pro	Thr	Lys	Val	Ala	Lys	Glu	Cys			
				470					475					480			
Ser	Cys	Gln	Arg	Cys	Thr	Glu	Thr	Arg	Ser	Ile	Val	Arg	Gly	Arg			
				485					490					495			
Val	Ser	Ala	Ala	Asp	Asn	Gly	Glu	Pro	Met	Arg	Phe	Gly	His	Val			
				500					505					510			
Tyr	Met	Gly	Asn	Ser	Arg	Val	Ser	Met	Thr	Gly	Tyr	Lys	Gly	Thr			
				515					520					525			
Phe	Thr	Leu	His	Val	Pro	Gln	Asp	Thr	Glu	Arg	Leu	Val	Leu	Thr			
				530					535					540			
Phe	Val	Asp	Arg	Leu	Gln	Lys	Phe	Val	Asn	Thr	Thr	Lys	Val	Leu			
				545					550					555			
Pro	Phe	Asn	Lys	Lys	Gly	Ser	Ala	Val	Phe	His	Glu	Ile	Lys	Met			
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Leu	Arg	Arg	Lys	Glu	Pro	Ile	Thr	Leu	Glu	Ala	Met	Glu	Thr	Asn			
				575					580					585			
Ile	Ile	Pro	Leu	Gly	Glu	Val	Val	Gly	Glu	Asp	Pro	Met	Ala	Glu			
				590					595					600			
Leu	Glu	Ile	Pro	Ser	Arg	Ser	Phe	Tyr	Arg	Gln	Asn	Gly	Glu	Pro			
				605					610					615			
Tyr	Ile	Gly	Lys	Val	Lys	Ala	Ser	Val	Thr	Phe	Leu	Asp	Pro	Arg			
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Asn	Ile	Ser	Thr	Ala	Thr	Ala	Ala	Gln	Thr	Asp	Leu	Asn	Phe	Ile			
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Asn	Asp	Glu	Gly	Asp	Thr	Phe	Pro	Leu	Arg	Thr	Tyr	Gly	Met	Phe			
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[illegible]

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Thr	His	Arg	Arg	Thr 980	Val	Gly	Lys	Leu	Tyr 985	Gly	Ile	Arg	Asp	Val 990
Arg	Ser	Thr	Arg	Asp 995	Arg	Asp	Gln	Pro	Asn 1000	Val	Ser	Ala	Ala	Cys 1005
Leu	Glu	Phe	Lys	Cys 1010	Ser	Gly	Met	Leu	Tyr 1015	Asp	Gln	Asp	Arg	Val 1020
Asp	Arg	Thr	Leu	Val 1025	Lys	Val	Ile	Pro	Gln 1030	Gly	Ser	Cys	Arg	Arg 1035
Ala	Ser	Val	Asn	Pro 1040	Met	Leu	His	Glu	Tyr 1045	Leu	Val	Asn	His	Leu 1050
Pro	Leu	Ala	Val	Asn 1055	Asn	Asp	Thr	Ser	Glu 1060	Tyr	Thr	Met	Leu	Ala 1065
Pro	Leu	Asp	Pro	Leu 1070	Gly	His	Asn	Tyr	Gly 1075	Ile	Tyr	Thr	Val	Thr 1080
Asp	Gln	Asp	Pro	Arg 1085	Thr	Ala	Lys	Glu	Ile 1090	Ala	Leu	Gly	Arg	Cys 1095
Phe	Asp	Gly	Thr	Ser 1100	Asp	Gly	Ser	Ser	Arg 1105	Ile	Met	Lys	Ser	Asn 1110
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Pro	Ala	Ala	Gly	Thr 1145	Val	Gln	Gly	Arg	Val 1150	Pro	Ser	Arg	Arg	Gln 1155
Gln	Arg	Ala	Ser	Arg 1160	Gly	Gly	Gln	Arg	Gln 1165	Gly	Gly	Val	Val	Ala 1170
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<212> DNA

<223> Synthetic oligonucleotide probe

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<210> 126
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 126
ccattgtgca ggtcagggtca cag 23

<210> 127
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 127
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<210> 128
<211> 2819
<212> DNA
<213> Homo sapiens

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09-01-2023

Leu Val Phe

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 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

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<210> 131
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 131
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<210> 132
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 <212> DNA
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<220>
 <223> Synthetic oligonucleotide probe

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<210> 134
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 <212> DNA
 <213> Homo sapiens

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<210> 135

<211> 228

<212> PRT
 <213> Homo sapiens

<400> 135

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				20					25					30	
Leu	Glu	Trp	Arg	Arg	Arg	Leu	Lys	Ser	Leu	Ala	Leu	Arg	Leu	Ala	
				35					40					45	
Gln	Tyr	Pro	Gly	Arg	Gly	Ser	Ala	Glu	Gly	Cys	Asp	Phe	Ser	Ile	
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His	Phe	Ser	Ser	Phe	Gly	Asp	Val	Ala	Cys	Met	Ala	Ile	Cys	Ser	
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Cys	Gln	Cys	Pro	Ala	Ala	Met	Ala	Phe	Cys	Phe	Leu	Glu	Thr	Leu	
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Trp	Trp	Glu	Phe	Thr	Ala	Ser	Tyr	Asp	Thr	Thr	Cys	Ile	Gly	Leu	
				95					100					105	
Ala	Ser	Arg	Pro	Tyr	Ala	Phe	Leu	Glu	Phe	Asp	Ser	Ile	Ile	Gln	
				110					115					120	
Lys	Val	Lys	Trp	His	Phe	Asn	Tyr	Val	Ser	Ser	Ser	Gln	Met	Glu	
				125					130					135	
Cys	Ser	Leu	Glu	Lys	Ile	Gln	Glu	Glu	Leu	Lys	Leu	Gln	Pro	Pro	
				140					145					150	
Ala	Val	Leu	Thr	Leu	Glu	Asp	Thr	Asp	Val	Ala	Asn	Gly	Val	Met	
				155					160					165	
Asn	Gly	His	Thr	Pro	Met	His	Leu	Glu	Pro	Ala	Pro	Asn	Phe	Arg	
				170					175					180	
Met	Glu	Pro	Val	Thr	Ala	Leu	Gly	Ile	Leu	Ser	Leu	Ile	Leu	Asn	
				185					190					195	
Ile	Met	Cys	Ala	Ala	Leu	Asn	Leu	Ile	Arg	Gly	Val	His	Leu	Ala	
				200					205					210	
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 <211> 239
 <212> DNA
 <213> Homo sapiens

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<221> unsure
 <222> 39, 61, 143, 209
 <223> unknown base

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 <211> 2300
 <212> DNA
 <213> Homo sapiens

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 <211> 489
 <212> PRT
 <213> Homo sapiens

<400> 138

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				20					25					30	
Ala	Thr	Leu	Tyr	Ile	Leu	Cys	His	Ile	Phe	Leu	Thr	Arg	Phe	Lys	
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Lys	Pro	Ala	Glu	Phe	Thr	Thr	Val	Asp	Asp	Glu	Asp	Ala	Thr	Val	
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Asn	Lys	Ile	Ala	Leu	Glu	Leu	Cys	Thr	Phe	Thr	Leu	Ala	Ile	Ala	
				65					70					75	
Leu	Gly	Ala	Val	Leu	Leu	Leu	Pro	Phe	Ser	Ile	Ile	Ser	Asn	Glu	
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Val	Leu	Leu	Ser	Leu	Pro	Arg	Asn	Tyr	Tyr	Ile	Gln	Trp	Leu	Asn	
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Gly	Ser	Leu	Ile	His	Gly	Leu	Trp	Asn	Leu	Val	Phe	Leu	Phe	Pro	
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Asn	Leu	Ser	Leu	Ile	Phe	Leu	Met	Pro	Phe	Ala	Tyr	Phe	Phe	Thr	
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Glu	Ser	Glu	Gly	Phe	Ala	Gly	Ser	Arg	Lys	Gly	Val	Leu	Gly	Arg	
				140					145					150	
Val	Tyr	Glu	Thr	Val	Val	Met	Leu	Met	Leu	Leu	Thr	Leu	Leu	Val	
				155					160					165	
Leu	Gly	Met	Val	Trp	Val	Ala	Ser	Ala	Ile	Val	Asp	Lys	Asn	Lys	
				170					175					180	
Ala	Asn	Arg	Glu	Ser	Leu	Tyr	Asp	Phe	Trp	Glu	Tyr	Tyr	Leu	Pro	
				185					190					195	
Tyr	Leu	Tyr	Ser	Cys	Ile	Ser	Phe	Leu	Gly	Val	Leu	Leu	Leu	Leu	
				200					205					210	
Val	Cys	Thr	Pro	Leu	Gly	Leu	Ala	Arg	Met	Phe	Ser	Val	Thr	Gly	
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Lys	Leu	Leu	Val	Lys	Pro	Arg	Leu	Leu	Glu	Asp	Leu	Glu	Glu	Gln	
				230					235					240	
Leu	Tyr	Cys	Ser	Ala	Phe	Glu	Glu	Ala	Ala	Leu	Thr	Arg	Arg	Ile	
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Cys	Asn	Pro	Thr	Ser	Cys	Trp	Leu	Pro	Leu	Asp	Met	Glu	Leu	Leu	
				260					265					270	
His	Arg	Gln	Val	Leu	Ala	Leu	Gln	Thr	Gln	Arg	Val	Leu	Leu	Glu	
				275					280					285	

Lys	Arg	Arg	Lys	Ala 290	Ser	Ala	Trp	Gln	Arg 295	Asn	Leu	Gly	Tyr	Pro 300
Leu	Ala	Met	Leu	Cys 305	Leu	Leu	Val	Leu	Thr 310	Gly	Leu	Ser	Val	Leu 315
Ile	Val	Ala	Ile	His 320	Ile	Leu	Glu	Leu	Leu 325	Ile	Asp	Glu	Ala	Ala 330
Met	Pro	Arg	Gly	Met 335	Gln	Gly	Thr	Ser	Leu 340	Gly	Gln	Val	Ser	Phe 345
Ser	Lys	Leu	Gly	Ser 350	Phe	Gly	Ala	Val	Ile 355	Gln	Val	Val	Leu	Ile 360
Phe	Tyr	Leu	Met	Val 365	Ser	Ser	Val	Val	Gly 370	Phe	Tyr	Ser	Ser	Pro 375
Leu	Phe	Arg	Ser	Leu 380	Arg	Pro	Arg	Trp	His 385	Asp	Thr	Ala	Met	Thr 390
Gln	Ile	Ile	Gly	Asn 395	Cys	Val	Cys	Leu	Leu 400	Val	Leu	Ser	Ser	Ala 405
Leu	Pro	Val	Phe	Ser 410	Arg	Thr	Leu	Gly	Leu 415	Thr	Arg	Phe	Asp	Leu 420
Leu	Gly	Asp	Phe	Gly 425	Arg	Phe	Asn	Trp	Leu 430	Gly	Asn	Phe	Tyr	Ile 435
Val	Phe	Leu	Tyr	Asn 440	Ala	Ala	Phe	Ala	Gly 445	Leu	Thr	Thr	Leu	Cys 450
Leu	Val	Lys	Thr	Phe 455	Thr	Ala	Ala	Val	Arg 460	Ala	Glu	Leu	Ile	Arg 465
Ala	Phe	Gly	Leu	Asp 470	Arg	Leu	Pro	Leu	Pro 475	Val	Ser	Gly	Phe	Pro 480
Gln	Ala	Ser	Arg	Lys 485	Thr	Gln	His	Gln						

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<212> DNA
<213> Homo sapiens
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tcatgctgag cagagtatgg aagcacctga ctacgaagtg ctatccgtgc 150
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gagaacagct attccacgag aggatccgcg agtgtattat atcaacactt 200
 ctgtttgcaa cactgtacat cctctgccac atcttcctga cccgcttcaa 250
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<210> 140
 <211> 526
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 197, 349
 <223> unknown base

<400> 140
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 tggatgatga agatgccacc gtcaacaaga ttgcgctcga gctgtgcacc 450
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 catcagcaat gaggtgctgc actccc 526

<210> 141
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 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 141
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<210> 142
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<220>
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<212> DNA
<213> Homo sapiens

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090710Z JUL 86

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090710Z JUL 68

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gactttgttt	aaaataagtg	aataagcgat	atttattatc	tgcaagggtt	1300
ttttgtgtgt	gtttttgttt	ttatttttcaa	tatgcaagtt	aggcttaatt	1350
tttttatcta	atgatcatca	tgaaatgaat	aagagggcct	aagaatttgt	1400
ccatttgcac	tcggaaaaga	atgaccagca	aaagggtttac	taatacctct	1450
ccctttgggg	atttaattgtc	tggtgctgcc	gcctgagttt	caagaattaa	1500
agctgcaaga	ggactccagg	agcaaaagaa	acacaatata	gagggttgga	1550
gttggttagca	atttcattca	aaatgccaac	tggagaagtc	tgttttttaa	1600
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<210> 148

<212> PRT

Met Ala Pro Gln Asn Leu Ser Thr Phe Cys Leu Leu Leu Leu Tyr
1 5 10 15

Gly	Val	Pro	Arg	Ser	Ala	Ser	Ile	Lys	Asp	Ile	Lys	Lys	Ala	Tyr	
				35					40					45	
Arg	Lys	Leu	Ala	Leu	Gln	Leu	His	Pro	Asp	Arg	Asn	Pro	Asp	Asp	
				50					55					60	
Pro	Gln	Ala	Gln	Glu	Lys	Phe	Gln	Asp	Leu	Gly	Ala	Ala	Tyr	Glu	
				65					70					75	
Val	Leu	Ser	Asp	Ser	Glu	Lys	Arg	Lys	Gln	Tyr	Asp	Thr	Tyr	Gly	
				80					85					90	
Glu	Glu	Gly	Leu	Lys	Asp	Gly	His	Gln	Ser	Ser	His	Gly	Asp	Ile	
				95					100					105	
Phe	Ser	His	Phe	Phe	Gly	Asp	Phe	Gly	Phe	Met	Phe	Gly	Gly	Thr	
				110					115					120	
Pro	Arg	Gln	Gln	Asp	Arg	Asn	Ile	Pro	Arg	Gly	Ser	Asp	Ile	Ile	
				125					130					135	
Val	Asp	Leu	Glu	Val	Thr	Leu	Glu	Glu	Val	Tyr	Ala	Gly	Asn	Phe	
				140					145					150	
Val	Glu	Val	Val	Arg	Asn	Lys	Pro	Val	Ala	Arg	Gln	Ala	Pro	Gly	
				155					160					165	
Lys	Arg	Lys	Cys	Asn	Cys	Arg	Gln	Glu	Met	Arg	Thr	Thr	Gln	Leu	
				170					175					180	
Gly	Pro	Gly	Arg	Phe	Gln	Met	Thr	Gln	Glu	Val	Val	Cys	Asp	Glu	
				185					190					195	
Cys	Pro	Asn	Val	Lys	Leu	Val	Asn	Glu	Glu	Arg	Thr	Leu	Glu	Val	
				200					205					210	
Glu	Ile	Glu	Pro	Gly	Val	Arg	Asp	Gly	Met	Glu	Tyr	Pro	Phe	Ile	
				215					220					225	
Gly	Glu	Gly	Glu	Pro	His	Val	Asp	Gly	Glu	Pro	Gly	Asp	Leu	Arg	
				230					235					240	
Phe	Arg	Ile	Lys	Val	Val	Lys	His	Pro	Ile	Phe	Glu	Arg	Arg	Gly	
				245					250					255	
Asp	Asp	Leu	Tyr	Thr	Asn	Val	Thr	Ile	Ser	Leu	Val	Glu	Ser	Leu	
				260					265					270	
Val	Gly	Phe	Glu	Met	Asp	Ile	Thr	His	Leu	Asp	Gly	His	Lys	Val	
				275					280					285	
His	Ile	Ser	Arg	Asp	Lys	Ile	Thr	Arg	Pro	Gly	Ala	Lys	Leu	Trp	
				290					295					300	
Lys	Lys	Gly	Glu	Gly	Leu	Pro	Asn	Phe	Asp	Asn	Asn	Asn	Ile	Lys	
				305					310					315	
Gly	Ser	Leu	Ile	Ile	Thr	Phe	Asp	Val	Asp	Phe	Pro	Lys	Glu	Gln	

	320		325		330
Leu Thr Glu Glu Ala Arg Glu Gly Ile Lys Gln Leu Leu Lys Gln					
	335		340		345
Gly Ser Val Gln Lys Val Tyr Asn Gly Leu Gln Gly Tyr					
	350		355		

<210> 149
 <211> 509
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> unsure
 <222> 34, 52, 134, 142, 155, 158, 196, 217, 228, 272, 347, 410, 445, 482
 <223> unknown base

<400> 149
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 gntgcgaccg aagcggcggtg cggaggaggt tttgaggatt tttggaacag 100
 gacccggaca gaggaaccat ggttccgcag aacntgagca cnttttgcct 150
 gttgntgnta tacttcatcg gggcgggtgat tgccggacga gatttntata 200
 agattttggg gtgcctngaa gtgccttnta taaaggatat taaaaaggcc 250
 tataggaaac tagccctgca gntttatccc gaccggaacc ctgatgatcc 300
 acaagcccag gagaaattcc aggatttggg tgctgcttat gaggttntgt 350
 cagatagtga gaaacggaaa cagtacgata attatggtga agaaggatta 400
 aaagatggtg atcagagctc ccatggagac attttttcac acttntttgg 450
 ggattttggt ttcattgttg gaggaacccc tngtcagcaa gacagaaata 500
 ttccaagag 509

<210> 150
 <211> 1532
 <212> DNA
 <213> Homo sapiens

<400> 150
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 aggcctcag gtctctgcag gtgtcgtgga ggaacctagc acctgccatc 100
 ctcttcccca atttgccact tccagcagct ttagcccatg aggaggatgt 150
 gaccgggact gagtcaggag ccctctggaa gcatggagac tgtggtgatt 200
 gttgccatag gtgtgctggc caccatcttt ctggcttcgt ttgcagcctt 250

ggtgctggtt tgcaggcagc gctactgccg gccgcgagac ctgctgcagc 300
 gctatgattc taagcccatt gtggacctca ttggtgccat ggagaccag 350
 tctgagccct ctgagttaga actggacgat gtcgttatca ccaaccccc 400
 cattgaggcc attctggaga atgaagactg gatcgaagat gcctcgggtc 450
 tcatgtccca ctgcattgcc atcttgaaga tttgtcacac tctgacagag 500
 aagcttgttg ccatgacaat gggctctggg gccaaagatga agacttcagc 550
 cagtgtcagc gacatcattg tgggtggccaa gcggatcagc cccagggtgg 600
 atgatgttgt gaagtctgat taccctccgt tggaccccaa actcctggac 650
 gcacggacga ctgccctgct cctgtctgtc agtcacctgg tgctggtgac 700
 aaggaatgcc tgccatctga cgggaggcct ggactggatt gaccagtctc 750
 tgtcggctgc tgaggagcat ttggaagtcc ttcgagaagc agccctagct 800
 tctgagccag ataaaggcct cccaggccct gaaggcttcc tgcaggagca 850
 gtctgcaatt tagtgcttac aggccagcag ctagccatga aggccctgc 900
 cgccatccct ggatggctca gcttagcctt ctactttttc ctatagagtt 950
 agttgttctc cacggctgga gagttcagct gtgtgtgcat agtaaagcag 1000
 gagatccccg tcagtttatg cctcttttgc agttgcaaac tgtggctggg 1050
 gagtggcagt ctaatactac agttagggga gatgccattc actctctgca 1100
 agaggagtat tgaaaactgg tggactgtca gctttattta gctcacctag 1150
 tgttttcaag aaaattgagc caccgtctaa gaaatcaaga ggtttcacat 1200
 taaaattaga atttctggcc tctctcgatc ggtcagaatg tgtggcaatt 1250
 ctgatctgca ttttcagaag aggacaatca attgaaacta agtaggggtt 1300
 tcttcttttg gcaagacttg tactctctca cctggcctgt ttcatttatt 1350
 tgtattatct gcctgggtccc tgaggcgtct gggctctctcc tctcccttgc 1400
 aggtttgggt ttgaagctga ggaactacaa agttgatgat ttctttttta 1450
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 atacttatgt ttccctcaaa aaaaaaaaaa aa 1532

<210> 151
 <211> 226
 <212> PRT
 <213> Homo sapiens
 <400> 151

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Phe	Leu	Ala	Ser	Phe	Ala	Ala	Leu	Val	Leu	Val	Cys	Arg	Gln	Arg	20	25	30	
Tyr	Cys	Arg	Pro	Arg	Asp	Leu	Leu	Gln	Arg	Tyr	Asp	Ser	Lys	Pro	35	40	45	
Ile	Val	Asp	Leu	Ile	Gly	Ala	Met	Glu	Thr	Gln	Ser	Glu	Pro	Ser	50	55	60	
Glu	Leu	Glu	Leu	Asp	Asp	Val	Val	Ile	Thr	Asn	Pro	His	Ile	Glu	65	70	75	
Ala	Ile	Leu	Glu	Asn	Glu	Asp	Trp	Ile	Glu	Asp	Ala	Ser	Gly	Leu	80	85	90	
Met	Ser	His	Cys	Ile	Ala	Ile	Leu	Lys	Ile	Cys	His	Thr	Leu	Thr	95	100	105	
Glu	Lys	Leu	Val	Ala	Met	Thr	Met	Gly	Ser	Gly	Ala	Lys	Met	Lys	110	115	120	
Thr	Ser	Ala	Ser	Val	Ser	Asp	Ile	Ile	Val	Val	Ala	Lys	Arg	Ile	125	130	135	
Ser	Pro	Arg	Val	Asp	Asp	Val	Val	Lys	Ser	Met	Tyr	Pro	Pro	Leu	140	145	150	
Asp	Pro	Lys	Leu	Leu	Asp	Ala	Arg	Thr	Thr	Ala	Leu	Leu	Leu	Ser	155	160	165	
Val	Ser	His	Leu	Val	Leu	Val	Thr	Arg	Asn	Ala	Cys	His	Leu	Thr	170	175	180	
Gly	Gly	Leu	Asp	Trp	Ile	Asp	Gln	Ser	Leu	Ser	Ala	Ala	Glu	Glu	185	190	195	
His	Leu	Glu	Val	Leu	Arg	Glu	Ala	Ala	Leu	Ala	Ser	Glu	Pro	Asp	200	205	210	
Lys	Gly	Leu	Pro	Gly	Pro	Glu	Gly	Phe	Leu	Gln	Glu	Gln	Ser	Ala	215	220	225	

Ile

<210> 152
 <211> 1027
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 1017, 1020
 <223> unknown base

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<400> 152
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tcgccgctgt ccccaccact gcagccatga tctccttaac ggacacgcag 100

aaaattggaa tgggattaac aggatttga gtgtttttcc tgttctttgg 150

aatgattctc ttttttgaca aagcactact ggctattgga aatgttttat 200

ttgtagccgg cttggcctttt gtaattgggt tagaaagaac attcagattc 250

ttcttccaaa aacataaaaat gaaagctaca ggtttttttc tgggtggtgt 300

atgtgtagtc cttattgggt ggcctttgat aggcatgac ttcgaaattt 350

atggattttt tctctgttc aggggcttct ttcctgtcgt tgttggcttt 400

attagaagag tgccagtcct tggatccctc ctaaatttac ctggaattag 450

atcatttgta gataaagttg gagaaagcaa caatatggta taacaacaag 500

tgaatttgaa gactcattta aaatattgtg ttatttataa agtcatttga 550

agaatattca gcacaaaatt aaattacatg aaatagcttg taatgttctt 600

tacaggagtt taaaacgtat agcctacaaa gtaccagcag caaattagca 650

aagaagcagt gaaaacaggc ttctactcaa gtgaactaag aagaagtcag 700

caagcaaact gagagaggtg aaatccatgt taatgatgct taagaaactc 750

ttgaaggcta tttgtgttgt ttttccacaa tgtgcgaaac tcagccatcc 800

ttagagaact gtggtgcctg tttcttttct ttttattttg aaggctcagg 850

agcatccata ggcatttgct ttttagaagt gtccactgca atggcaaaaa 900

tatttccagt tgcactgtat ctctggaagt gatgcatgaa ttcgattgga 950

ttgtgtcatt ttaaagtatt aaaaccaagg aaacccaat tttgatgtat 1000

ggattacttt tttttgngcn cagggcc 1027

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<210> 153
<211> 138
<212> PRT
<213> Homo sapiens

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<220>
<221> N-myristoylation Sites
<222> 11-16, 51-56 and 116-121
<223> N-myristoylation Sites.

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<220>
<221> Transmembrane domains
<222> 12-30, 33-52, 69-89 and 93-109
<223> Transmembrane domains

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<220>
 <221> Aminoacyl-transfer RNA Synthetases.
 <222> 49-59
 <223> Aminoacyl-transfer RNA synthetases class-II protein.

<400> 153
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 Gly Phe Gly Val Phe Phe Leu Phe Phe Gly Met Ile Leu Phe Phe
 20 25 30
 Asp Lys Ala Leu Leu Ala Ile Gly Asn Val Leu Phe Val Ala Gly
 35 40 45
 Leu Ala Phe Val Ile Gly Leu Glu Arg Thr Phe Arg Phe Phe Phe
 50 55 60
 Gln Lys His Lys Met Lys Ala Thr Gly Phe Phe Leu Gly Gly Val
 65 70 75
 Phe Val Val Leu Ile Gly Trp Pro Leu Ile Gly Met Ile Phe Glu
 80 85 90
 Ile Tyr Gly Phe Phe Leu Leu Phe Arg Gly Phe Phe Pro Val Val
 95 100 105
 Val Gly Phe Ile Arg Arg Val Pro Val Leu Gly Ser Leu Leu Asn
 110 115 120
 Leu Pro Gly Ile Arg Ser Phe Val Asp Lys Val Gly Glu Ser Asn
 125 130 135
 Asn Met Val

<210> 154
 <211> 405
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 66
 <223> unknown base

<400> 154
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 actcagcttc ccacntggg ctttccgagg tgccttcgcc gctgtcccca 100
 ccaactgcagc catgatctcc ttaacggaca cgcagaaaat tggaatggga 150
 ttaaccggat ttggagtgtt tttcctgttc tttggaatga ttctcttttt 200
 tgacaaagca ctactggcta ttggaaatgt tttatttgta gccggcttgg 250
 cttttgtaat tggtttagaa agaacattca gattcttctt ccaaaaacat 300

aaaatgaaaag ctacaggttt ttttctgggt ggtgtatttg tagtccttat 350
 tggttggcct ttgataggca tgatcttcga aatttatgga ttttttctct 400
 tgttc 405

<210> 155
 <211> 1781
 <212> DNA
 <213> Homo sapiens

<400> 155
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 ccatgtgccca aaggctgccca ggaaggagac gccttctga gtcttgatc 100
 tttcttcctt ctggaaatct ttgactgtgg gtagttattt atttctgaat 150
 aagagcgtcc acgcatcatg gacctcgcg gactgctgaa gtctcagttc 200
 ctgtgccacc tggcttctctg ctacgtcttt attgcctcag ggctaactcat 250
 caacaccatt cagctcttca ctctcctcct ctggccatt aacaagcagc 300
 tcttcgga gatcaactgc agactgtcct attgcatctc aagccagctg 350
 gtgatgctgc tggagtggg gtcgggcacg gaatgcacca tcttcacgga 400
 cccgcgcgcc tacctcaagt atgggaagga aaatgccatc gtggttctca 450
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 tttgggctgt tagggggctc caaggctcctg gccaaagaa agctggccta 550
 tgtcccaatt atcggtgga tgtggtactt caccgagatg gtcttctgtt 600
 cgcgcaagtg ggagcaggat cgcaagacgg ttgccaccag tttgcagcac 650
 ctccgggact accccgagaa gtatTTTTT ctgattcact gtgagggcac 700
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 aggggctgcc tcgcctcaag catcacctgt tgccacgaac caagggcttc 800
 gccatcaccg tgaggagctt gagaaatgta gtttcagctg tatatgactg 850
 tacactcaat ttcagaaata atgaaaatcc aacactgctg ggagtcctaa 900
 acggaagaa ataccatgca gatttgtatg ttaggaggat cccactggaa 950
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 ccaggagaag gatgccttcc aggaggagta ctacaggacg ggcaccttcc 1050
 cagagacgcc catggtgccc ccccgcggc cctggaccct cgtgaactgg 1100
 ctgttttggg cctcgtgggt gctctaccct ttcttcagtt tcctggtcag 1150

catgatcagg agcgggtctt ccctgacgct ggccagcttc atcctcgtct 1200
tctttgtggc ctccgtggga gttcgatgga tgattggtgt gacggaaatt 1250
gacaagggct ctgcctacgg caactctgac agcaagcaga aactgaatga 1300
ctgactcagg gaggtgtcac catccgaagg gaaccttggg gaactggtgg 1350
cctctgcata tcctccttag tgggacacgg tgacaaaggc tgggtgagcc 1400
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gcttttagtgg gctttggttt tctttttgtg cgagtgtgtg tgagaatggc 1550
tgtgtggtga gtgtgaactt tgttctgtga tcatagaaag ggtatttttag 1600
gctgcagggg agggcagggc tggggaccga aggggacaag ttcccctttc 1650
atcctttggt gctgagtttt ctgtaaccct tggttgccag agataaagtg 1700
aaaagtgctt taggtgagat gactaaatta tgccccaag aaaaaaaaaat 1750
taaagtgctt ttctgggtca aaaaaaaaaa a 1781

<210> 156
<211> 378
<212> PRT
<213> Homo sapiens

<400> 156
Met Asp Leu Ala Gly Leu Leu Lys Ser Gln Phe Leu Cys His Leu
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Val Phe Cys Tyr Val Phe Ile Ala Ser Gly Leu Ile Ile Asn Thr
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Ile Gln Leu Phe Thr Leu Leu Leu Trp Pro Ile Asn Lys Gln Leu
35 40 45
Phe Arg Lys Ile Asn Cys Arg Leu Ser Tyr Cys Ile Ser Ser Gln
50 55 60
Leu Val Met Leu Leu Glu Trp Trp Ser Gly Thr Glu Cys Thr Ile
65 70 75
Phe Thr Asp Pro Arg Ala Tyr Leu Lys Tyr Gly Lys Glu Asn Ala
80 85 90
Ile Val Val Leu Asn His Lys Phe Glu Ile Asp Phe Leu Cys Gly
95 100 105
Trp Ser Leu Ser Glu Arg Phe Gly Leu Leu Gly Gly Ser Lys Val
110 115 120
Leu Ala Lys Lys Glu Leu Ala Tyr Val Pro Ile Ile Gly Trp Met
125 130 135

Trp	Tyr	Phe	Thr	Glu	Met	Val	Phe	Cys	Ser	Arg	Lys	Trp	Glu	Gln	140	145	150
Asp	Arg	Lys	Thr	Val	Ala	Thr	Ser	Leu	Gln	His	Leu	Arg	Asp	Tyr	155	160	165
Pro	Glu	Lys	Tyr	Phe	Phe	Leu	Ile	His	Cys	Glu	Gly	Thr	Arg	Phe	170	175	180
Thr	Glu	Lys	Lys	His	Glu	Ile	Ser	Met	Gln	Val	Ala	Arg	Ala	Lys	185	190	195
Gly	Leu	Pro	Arg	Leu	Lys	His	His	Leu	Leu	Pro	Arg	Thr	Lys	Gly	200	205	210
Phe	Ala	Ile	Thr	Val	Arg	Ser	Leu	Arg	Asn	Val	Val	Ser	Ala	Val	215	220	225
Tyr	Asp	Cys	Thr	Leu	Asn	Phe	Arg	Asn	Asn	Glu	Asn	Pro	Thr	Leu	230	235	240
Leu	Gly	Val	Leu	Asn	Gly	Lys	Lys	Tyr	His	Ala	Asp	Leu	Tyr	Val	245	250	255
Arg	Arg	Ile	Pro	Leu	Glu	Asp	Ile	Pro	Glu	Asp	Asp	Asp	Glu	Cys	260	265	270
Ser	Ala	Trp	Leu	His	Lys	Leu	Tyr	Gln	Glu	Lys	Asp	Ala	Phe	Gln	275	280	285
Glu	Glu	Tyr	Tyr	Arg	Thr	Gly	Thr	Phe	Pro	Glu	Thr	Pro	Met	Val	290	295	300
Pro	Pro	Arg	Arg	Pro	Trp	Thr	Leu	Val	Asn	Trp	Leu	Phe	Trp	Ala	305	310	315
Ser	Leu	Val	Leu	Tyr	Pro	Phe	Phe	Gln	Phe	Leu	Val	Ser	Met	Ile	320	325	330
Arg	Ser	Gly	Ser	Ser	Leu	Thr	Leu	Ala	Ser	Phe	Ile	Leu	Val	Phe	335	340	345
Phe	Val	Ala	Ser	Val	Gly	Val	Arg	Trp	Met	Ile	Gly	Val	Thr	Glu	350	355	360
Ile	Asp	Lys	Gly	Ser	Ala	Tyr	Gly	Asn	Ser	Asp	Ser	Lys	Gln	Lys	365	370	375

Leu Asn Asp

<210> 157

<211> 1849

<212> DNA

<213> Homo sapiens

<400> 157

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acggaagggtt ttcttcttgg ggaagtaaaa ggtgaagcca agaacagcat 150
tactgattcc caaatggatg atgttgaagt tgtttatata attgacattc 200
agaaatatat tccatgctat cagcttttta gcttttataa ttcttcaggc 250
gaagtaaagt agcaagcact gaagaaaata ttatcaaagt tcaaaaagaa 300
tgtggtaggt tggtagaaat tccgtcgtca ttcagatcag atcatgacgt 350
ttagagagag gctgcttcac aaaaacttgc aggagcattt ttcaaaccac 400
gaccttggtt ttctgctatt aacaccaagt ataataacag aaagctgctc 450
tactcatcga ctggaacatt ccttatataa acctcaaaaa ggactttttc 500
acagggtagc tttagtgggt gccaatctgg gcatgtctga acaactgggt 550
tataaaactg tatcagggtc ctgtatgtcc actggtttta gccgagcagt 600
acaaacacac agctctaaat tttttgaaga agatggatcc tttaaaggagg 650
tacataagat aaatgaaatg tatgcttcat tacaagagga attaaagagt 700
atatgcaaaa aagtgggaaga cagtgaacaa gcagtagata aactagtaaa 750
ggatgtaaac agattaaaac gagaaattga gaaaaggaga ggagcacaga 800
ttcaggcagc aagagagaag aacatccaaa aagaccctca ggagaacatt 850
tttctttgtc aggcattacg gacctttttt ccaaattctg aatttcttca 900
ttcatgtgtt atgtctttta aaaatagaca tgtttctaaa agtagctgta 950
actacaacca ccatctcgat gtagtagaca atctgacctt aatggtagaa 1000
cacactgaca ttcctgaagc tagtccagct agtacaccac aaatcattaa 1050
gcataaagcc ttagacttag atgacagatg gcaattcaag agatctcggg 1100
tgtagatagc acaagacaaa cgatctaaag caaatactgg tagtagtaac 1150
caagataaag catccaaaat gagcagccca gaaacagatg aagaaattga 1200
aaagatgaag ggttttggtg aatattcacg gtctcctaca ttttgatcct 1250
tttaacctta caaggagatt tttttatttg gctgatgggt aaagccaaac 1300
atttctattg tttttactat gttgagctac ttgcagtaag ttcatttggt 1350
tttactatgt tcacctgttt gcagtaatac acagataact cttagtgcac 1400
ttacttcaca aagtactttt tcaaacaatc gatgctttta tttccaaacc 1450
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SECRET

<211> 409

<213> Homo sapiens

Met 1	Glu	Gly	Glu	Ser 5	Thr	Ser	Ala	Val	Leu 10	Ser	Gly	Phe	Val	Leu 15
Gly	Ala	Leu	Ala	Phe 20	Gln	His	Leu	Asn	Thr 25	Asp	Ser	Asp	Thr	Glu 30
Gly	Phe	Leu	Leu	Gly 35	Glu	Val	Lys	Gly	Glu 40	Ala	Lys	Asn	Ser	Ile 45
Thr	Asp	Ser	Gln	Met 50	Asp	Asp	Val	Glu	Val 55	Val	Tyr	Thr	Ile	Asp 60
Ile	Gln	Lys	Tyr	Ile 65	Pro	Cys	Tyr	Gln	Leu 70	Phe	Ser	Phe	Tyr	Asn 75
Ser	Ser	Gly	Glu	Val 80	Asn	Glu	Gln	Ala	Leu 85	Lys	Lys	Ile	Leu	Ser 90
Asn	Val	Lys	Lys	Asn 95	Val	Val	Gly	Trp	Tyr 100	Lys	Phe	Arg	Arg	His 105
Ser	Asp	Gln	Ile	Met 110	Thr	Phe	Arg	Glu	Arg 115	Leu	Leu	His	Lys	Asn 120
Leu	Gln	Glu	His	Phe 125	Ser	Asn	Gln	Asp	Leu 130	Val	Phe	Leu	Leu	Leu 135
Thr	Pro	Ser	Ile	Ile 140	Thr	Glu	Ser	Cys	Ser 145	Thr	His	Arg	Leu	Glu 150
His	Ser	Leu	Tyr	Lys 155	Pro	Gln	Lys	Gly	Leu 160	Phe	His	Arg	Val	Pro 165
Leu	Val	Val	Ala	Asn 170	Leu	Gly	Met	Ser	Glu 175	Gln	Leu	Gly	Tyr	Lys 180
Thr	Val	Ser	Gly	Ser 185	Cys	Met	Ser	Thr	Gly 190	Phe	Ser	Arg	Ala	Val 195

Gln	Thr	His	Ser	Ser	Lys	Phe	Phe	Glu	Glu	Asp	Gly	Ser	Leu	Lys	200	205	210
Glu	Val	His	Lys	Ile	Asn	Glu	Met	Tyr	Ala	Ser	Leu	Gln	Glu	Glu	215	220	225
Leu	Lys	Ser	Ile	Cys	Lys	Lys	Val	Glu	Asp	Ser	Glu	Gln	Ala	Val	230	235	240
Asp	Lys	Leu	Val	Lys	Asp	Val	Asn	Arg	Leu	Lys	Arg	Glu	Ile	Glu	245	250	255
Lys	Arg	Arg	Gly	Ala	Gln	Ile	Gln	Ala	Ala	Arg	Glu	Lys	Asn	Ile	260	265	270
Gln	Lys	Asp	Pro	Gln	Glu	Asn	Ile	Phe	Leu	Cys	Gln	Ala	Leu	Arg	275	280	285
Thr	Phe	Phe	Pro	Asn	Ser	Glu	Phe	Leu	His	Ser	Cys	Val	Met	Ser	290	295	300
Leu	Lys	Asn	Arg	His	Val	Ser	Lys	Ser	Ser	Cys	Asn	Tyr	Asn	His	305	310	315
His	Leu	Asp	Val	Val	Asp	Asn	Leu	Thr	Leu	Met	Val	Glu	His	Thr	320	325	330
Asp	Ile	Pro	Glu	Ala	Ser	Pro	Ala	Ser	Thr	Pro	Gln	Ile	Ile	Lys	335	340	345
His	Lys	Ala	Leu	Asp	Leu	Asp	Asp	Arg	Trp	Gln	Phe	Lys	Arg	Ser	350	355	360
Arg	Leu	Leu	Asp	Thr	Gln	Asp	Lys	Arg	Ser	Lys	Ala	Asn	Thr	Gly	365	370	375
Ser	Ser	Asn	Gln	Asp	Lys	Ala	Ser	Lys	Met	Ser	Ser	Pro	Glu	Thr	380	385	390
Asp	Glu	Glu	Ile	Glu	Lys	Met	Lys	Gly	Phe	Gly	Glu	Tyr	Ser	Arg	395	400	405

Ser Pro Thr Phe

<210> 159
 <211> 2651
 <212> DNA
 <213> Homo sapiens

<400> 159
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 acgagcggac cagcgcaggg cagcccaagc agcgcgcagc gaacgcccgc 100
 cgccgcccac accctctgcg gtccccgcgg cgcttgccac ccttcctcc 150
 ttccccgcgt ccccgctcg ccggccagtc agcttgccgg gttegetgce 200

SECRET

ctggttactg atgtcaagga gaaactgaaa caggccaaga aattctggtc 1700
ctcccttccg agcaacgttt gcaacgatga gaggatggct gcaggaaacg 1750
gcaatgagga tgactggttg aatgggaaaag gcaaaaagcag gtacctgttt 1800
gcagtgcacag gaaatggatt agccaaccag ggcaacaacc cagaggtcca 1850
ggttgacacc agcaaaccag acatactgat ccttcgtcaa atcatgggtc 1900
ttcgagtgat gaccagcaag atgaagaatg catacaatgg gaacgacgtg 1950
gacttctttg atatcagtga tgaaagtagt ggagaaggaa gtggaagtgg 2000
ctgtgagtat cagcagtgcc cttcagagtt tgactacaat gccactgacc 2050
atgtctggga gagtgccaat gagaaagccg acagtgtctg tgtccgtcct 2100
ggggcacagg cctacctcct cactgtcttc tgcattctgt tcttggttat 2150
gcagagagag tggagataat tctcaaaactc tgagaaaaag tgttcatcaa 2200
aaagttaaaa ggcaccagt atcacttttc taccatccta gtgactttgc 2250
tttttaaagt aatggacaac aatgtacagt ttttactatg tggccactgg 2300
tttaagaagt gctgactttg ttttctcatt cagttttggg aggaaaaggg 2350
actgtgcatt gagttggttc ctgctcccc aaaccatgtt aaacgtggct 2400
aacagtgtag gtacagaact atagttagtt gtgcatttgt gattttatca 2450
ctctattatt tgtttgatg tttttttctc atttcgtttg tgggtttttt 2500
tttccaactg tgatctcgcc ttgtttctta caagcaaacc agggtcctt 2550
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agcaggtttt atttatcatg ttatcttatt aaaagaaaaa gcccaaaaag 2650

c 2651

<210> 160

<211> 556

<212> PRT

<213> Homo sapiens

<400> 160

Met Ala Arg Phe Gly Leu Pro Ala Leu Leu Cys Thr Leu Ala Val
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Leu Ser Ala Ala Leu Leu Ala Ala Glu Leu Lys Ser Lys Ser Cys
20 25 30

Ser Glu Val Arg Arg Leu Tyr Val Ser Lys Gly Phe Asn Lys Asn
35 40 45

Asp Ala Pro Leu His Glu Ile Asn Gly Asp His Leu Lys Ile Cys

Pro	Leu	Pro	Ala	Gly	Arg	Ile	Ser	Arg	Ser	Ile	Ser	Glu	Ser	Ala	350	355	360
Phe	Ser	Ala	Arg	Phe	Arg	Pro	His	His	Pro	Glu	Glu	Arg	Pro	Thr	365	370	375
Thr	Ala	Ala	Gly	Thr	Ser	Leu	Asp	Arg	Leu	Val	Thr	Asp	Val	Lys	380	385	390
Glu	Lys	Leu	Lys	Gln	Ala	Lys	Lys	Phe	Trp	Ser	Ser	Leu	Pro	Ser	395	400	405
Asn	Val	Cys	Asn	Asp	Glu	Arg	Met	Ala	Ala	Gly	Asn	Gly	Asn	Glu	410	415	420
Asp	Asp	Cys	Trp	Asn	Gly	Lys	Gly	Lys	Ser	Arg	Tyr	Leu	Phe	Ala	425	430	435
Val	Thr	Gly	Asn	Gly	Leu	Ala	Asn	Gln	Gly	Asn	Asn	Pro	Glu	Val	440	445	450
Gln	Val	Asp	Thr	Ser	Lys	Pro	Asp	Ile	Leu	Ile	Leu	Arg	Gln	Ile	455	460	465
Met	Ala	Leu	Arg	Val	Met	Thr	Ser	Lys	Met	Lys	Asn	Ala	Tyr	Asn	470	475	480
Gly	Asn	Asp	Val	Asp	Phe	Phe	Asp	Ile	Ser	Asp	Glu	Ser	Ser	Gly	485	490	495
Glu	Gly	Ser	Gly	Ser	Gly	Cys	Glu	Tyr	Gln	Gln	Cys	Pro	Ser	Glu	500	505	510
Phe	Asp	Tyr	Asn	Ala	Thr	Asp	His	Ala	Gly	Lys	Ser	Ala	Asn	Glu	515	520	525
Lys	Ala	Asp	Ser	Ala	Gly	Val	Arg	Pro	Gly	Ala	Gln	Ala	Tyr	Leu	530	535	540
Leu	Thr	Val	Phe	Cys	Ile	Leu	Phe	Leu	Val	Met	Gln	Arg	Glu	Trp	545	550	555

Arg

<210> 161

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 161

ctccgtggta aaccccacag ccc 23

<210> 162

<211> 24

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 162
tcacatcgat gggatccatg accg 24

<210> 163
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 163
ggtctcgtga ctgtgaagcc atgttacaac tactgctcaa acatcatgag 50

<210> 164
<211> 870
<212> DNA
<213> Homo sapiens

<400> 164
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gctgagtatc ctgacctgag tcatccccag ggatcaggag cctccagcag 100
ggaaccttcc attatattct tcaagcaact tacagctgca ccgacagttg 150
cgatgaaaagt tctaattctt tccctctctc tgttgctgcc actaatgctg 200
atgtccatgg tctctagcag cctgaatcca ggggtcgcca gaggccacag 250
ggaccgaggc caggcttcta ggagatggct ccaggaaggc ggccaagaat 300
gtgagtgcaa agattgggtc ctgagagccc cgagaagaaa attcatgaca 350
gtgtctgggc tgccaaagaa gcagtgtccc tgtgatcatt tcaagggcaa 400
tgtgaagaaa acaagacacc aaaggcacca cagaaagcca aacaagcatt 450
ccagagcctg ccagcaattt ctcaaacaat gtcagctaag aagctttgct 500
ctgcctttgt aggagctctg agcgcccact cttccaatta aacatttctca 550
gccaagaaga cagtgagcac acctaccaga cactcttctt ctcccacctc 600
actctccac tgtaccacc cctaaatcat tccagtgtc tcaaaaagca 650
tgtttttcaa gatcattttg tttgttgctc tctctagtgt cttcttctct 700
cgtcagtctt agcctgtgcc ctccccttac ccaggcttag gcttaattac 750
ctgaaagatt ccaggaaact gtagcttctt agctagtgtc atttaacctt 800

ggaggtccgg agagtactga gaccgggagg tgtgctcttt ttctgggagc 600
 atgtggcaga accatatgga agctgggcct tcatgtggca gcaagttttc 650
 gagcccacct ggaaacacat tggggatggc tgctgcctca ccagagagac 700
 ctggaaggat cttgagaacg cccagttctc cgaaatccaa atggaacgac 750
 agccccctcc cttgaagtgg ctacctgttg ggccccacat catgggaaag 800
 gctgtcaaac aatctttccc aagctccaag gcactcattt gtccttccc 850
 cagcctccaa ttagaacaag ccaccacca gcctatctat cttccactga 900
 gagggaccta gcagaatgag agaagacatt catgtaccac ctactagtcc 950
 ctctctcccc aacctctgcc agggcaatct ctaacttcaa tcccgcttc 1000
 gacagtga aaagctctact tctacgctga cccagggagg aaacactagg 1050
 accctgttgt atcctcaact gcaagtttct ggactagtct cccaacgttt 1100
 gcctcccaat gttgtccctt tccttcgttc ccatggtaaa gtcctctctg 1150
 ctttctctct gaggtacac ccatgcgtct ctaggaactg gtcacaaaag 1200
 tcatggtgcc tgcacccctg ccaagcccc ctgaccctct ctccccacta 1250
 ccaccttctt cctgagctgg gggcaccagg gagaatcaga gatgctgggg 1300
 atgccagagc aagactcaaa gaggcagagg ttttgttctc aaatattttt 1350
 taataaatag acgaaaccac g 1371

<210> 169
 <211> 277
 <212> PRT
 <213> Homo sapiens

<400> 169
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 Thr Leu Pro Leu His Leu Met Ala Leu Leu Gly Cys Trp Gln Pro
 20 25 30
 Leu Cys Lys Ser Tyr Phe Pro Tyr Leu Met Ala Val Leu Thr Pro
 35 40 45
 Lys Ser Asn Arg Lys Met Glu Ser Lys Lys Arg Glu Leu Phe Ser
 50 55 60
 Gln Ile Lys Gly Leu Thr Gly Ala Ser Gly Lys Val Ala Leu Leu
 65 70 75
 Glu Leu Gly Cys Gly Thr Gly Ala Asn Phe Gln Phe Tyr Pro Pro
 80 85 90

Gly Cys Arg Val Thr Cys Leu Asp Pro Asn Pro His Phe Glu Lys
 95 100 105
 Phe Leu Thr Lys Ser Met Ala Glu Asn Arg His Leu Gln Tyr Glu
 110 115 120
 Arg Phe Val Val Ala Pro Gly Glu Asp Met Arg Gln Leu Ala Asp
 125 130 135
 Gly Ser Met Asp Val Val Val Cys Thr Leu Val Leu Cys Ser Val
 140 145 150
 Gln Ser Pro Arg Lys Val Leu Gln Glu Val Arg Arg Val Leu Arg
 155 160 165
 Pro Gly Gly Val Leu Phe Phe Trp Glu His Val Ala Glu Pro Tyr
 170 175 180
 Gly Ser Trp Ala Phe Met Trp Gln Gln Val Phe Glu Pro Thr Trp
 185 190 195
 Lys His Ile Gly Asp Gly Cys Cys Leu Thr Arg Glu Thr Trp Lys
 200 205 210
 Asp Leu Glu Asn Ala Gln Phe Ser Glu Ile Gln Met Glu Arg Gln
 215 220 225
 Pro Pro Pro Leu Lys Trp Leu Pro Val Gly Pro His Ile Met Gly
 230 235 240
 Lys Ala Val Lys Gln Ser Phe Pro Ser Ser Lys Ala Leu Ile Cys
 245 250 255
 Ser Phe Pro Ser Leu Gln Leu Glu Gln Ala Thr His Gln Pro Ile
 260 265 270
 Tyr Leu Pro Leu Arg Gly Thr
 275

<210> 170
 <211> 1621
 <212> DNA
 <213> Homo sapiens

<400> 170
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 cctcatcgca ggcagatggt ggggctttgt ccgaacagct cccctctgcc 100
 agcttctgta gataagggtt aaaaactaat atttatatga cagaagaaaa 150
 agatgtcatt ccgtaaagta aacatcatca tcttggtcct ggctgttgct 200
 ctcttcttac tggttttgca ccataacttc ctcagcttga gcagtttggt 250
 aaggaatgag gttacagatt caggaattgt agggcctcaa cctatagact 300
 ttgtcccaaa tgctctccga catgcagtag atgggagaca agaggagatt 350

cctgtggtca tcgctgcac tgaagacagg cttggggggg ccattgcagc 400
tataaacagc attcagcaca aactcgcctc caatgtgatt ttctacattg 450
ttactctcaa caatacagca gaccatctcc ggtcctggct caacagtgat 500
tccctgaaaa gcatcagata caaaattgtc aattttgacc ctaaactttt 550
ggaaggaaaa gtaaaggagg atcctgacca gggggaatcc atgaaacctt 600
taacctttgc aaggttctac ttgccaattc tggttcccag cgcaaagaag 650
gccatataca tggatgatga tgtaattgtg caagggtgata ttcttgccct 700
ttacaataca gactgaagc caggacatgc agctgcattt tcagaagatt 750
gtgattcagc ctctactaaa gttgtcatcc gtggagcagg aaaccagtac 800
aattacattg gctatcttga ctataaaaag gaaagaattc gtaagctttc 850
catgaaagcc agcacttgct catttaatcc tggagttttt gttgcaaacc 900
tgacggaatg gaaacgacag aatataacta accaactgga aaaatggatg 950
aaactcaatg tagaagaggg actgtatagc agaaccctgg ctggtagcat 1000
cacaacacct cctctgctta tcgtatttta tcaacagcac tctaccatcg 1050
atcctatgtg gaatgtccgc caccttggtt ccagtgtctg aaaacgatat 1100
tcacctcagt ttgtaaaggc tgccaagtta ctccattgga atggacattt 1150
gaagccatgg ggaaggactg cttcatatac tgatgttttg gaaaaatggg 1200
atattccaga cccaacaggc aaattcaacc taatccgaag atataccgag 1250
atctcaaaca taaagtgaag cagaatttga actgtaagca agcatttctc 1300
aggaagtcct ggaagatagc atgcatggga agtaacagtt gctaggcttc 1350
aatgcctatc ggtagcaagc catggaaaaa gatgtgtcag ctaggtaaag 1400
atgacaaaact gccctgtctg gcagtcagct tcccagacag actatagact 1450
ataaatatgt ctccatctgc cttaccaagt gttttcttac tacaatgctg 1500
aatgactgga aagaagaact gatatggcta gttcagctag ctggtacaga 1550
taattcaaaa ctgctgttgg ttttaatttt gtaacctgtg gcctgatctg 1600
taaataaaaac ttacattttt c 1621

<210> 171
<211> 371
<212> PRT
<213> Homo sapiens
<400> 171

SECRET

290	295	300
Pro Met Trp Asn Val Arg His Leu Gly	Ser Ser Ala Gly Lys Arg	
305	310	315
Tyr Ser Pro Gln Phe Val Lys Ala Ala	Lys Leu Leu His Trp Asn	
320	325	330
Gly His Leu Lys Pro Trp Gly Arg Thr	Ala Ser Tyr Thr Asp Val	
335	340	345
Trp Glu Lys Trp Tyr Ile Pro Asp Pro	Thr Gly Lys Phe Asn Leu	
350	355	360
Ile Arg Arg Tyr Thr Glu Ile Ser Asn	Ile Lys	
365	370	

<210> 172
 <211> 585
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 71, 76, 86, 91, 162, 220, 269, 281
 <223> unknown base

<400> 172
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 aggttacaga ttcaggaatt ntaggnccctc aacctntaga ntttgtccca 100
 aatgtttctcc gacatgcagt agatgggaga caagaggaga ttctgtggt 150
 catcgctgca tntgaagaca ggcttggggg ggccattgca gctataaaca 200
 gcattcagca caacactcgn tccaatgtga ttttctacat tgttactctc 250
 aacaatacag cagaccatnt ccggtcctgg ntcaacagtg attccctgaa 300
 aagcatcaga tacaaaattg tcaattttga ccctaaactt ttggaaggaa 350
 aagtaaagga ggatcctgac cagggggaat ccatgaaacc tttaaccttt 400
 gcaaggttct acttgccaat tctgggtccc agcgcaaaga aggccatata 450
 catggatgat gatgtaattg tgcaaggtga tattcttgcc ctttacaata 500
 cagcactgaa gccaggacat gcagctgcat tttcagaaga ttgtgattca 550
 gcctctacta aagttgtcat ccgtggagca ggaaa 585

<210> 173
 <211> 1866
 <212> DNA
 <213> Homo sapiens

<400> 173

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 gcggttgcca cggagctaga gggcaagtgt gctcggccca gcgtgcaggg 100
 aacgcgggcg gccagacaac gggctgggct ccgggggcctg cggcgcgggc 150
 gctgagctgg cagggcgggg cggggcgcgg gctgcatccg catctcctcc 200
 atcgctgca gtaagggcgg ccgcggcgag cctttgaggg gaacgacttg 250
 tcggagccct aaccaggggt gtctctgagc ctggtgggat ccccgagcg 300
 tcacatcact ttccgatcac ttcaaagtgg ttaaaaacta atatttatat 350
 gacagaagaa aaagatgtca ttccgtaaag taaacatcat catcttggtc 400
 ctgggctggt gctctcttct tactggtttt gcaccataac ttcctcagct 450
 tgaggcagtt tgtaaggaa tgaggttaca gattcaggaa ttgtagggcc 500
 tcaacctata ggactttgtc ccaaagtctc tccgacatgc agtagatggg 550
 agacaagagg agattcctgt ggtcatcgct gcatctgaag acaggcttgg 600
 gggggccatt gcagctataa acagcattca gcacaacact cgctccaatg 650
 tgattttcta cattgttact ctcaacaata cagcagacca tctccggtcc 700
 tgggctcaac agtgattccc tgaaaagcat cagatacaaa attgtcaatt 750
 ttgaccctaa acttttgga ggaagagtaa aggaggatcc tgaccagggg 800
 gaatccatga aacctttaac ctttgcaagg ttctacttgc caattctggg 850
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 ggtgatattc ttgcccttta caatacagca ctgaagccag gacatgcagc 950
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 gagcaggaaa ccagtacaat tacattggct atcttgacta taaaaaggaa 1050
 agaattcgta agctttccat gaaagccagc acttgctcat ttaatcctgg 1100
 agtttttgtt gcaaacctga cggaatggaa acgacagaat ataactaacc 1150
 aactggaaaa atggatgaaa ctcaatgtag aagagggact gtatagcaga 1200
 accctggctg gtagcatcac aacacctcct ctgcttatcg tattttatca 1250
 acagcactct accatcgatc ctatgtggaa tgtccgccac cttgggtcca 1300
 gtgctggaaa acgatattca cctcagtttg taaaggctgc caagttactc 1350
 cattggaatg gacatttgaa gccatgggga aggactgctt catatactga 1400
 tgtttgggga aaaatggtat attccagacc caacaggcaa attcaaccta 1450

atccgaagat ataccgagat ctcaaacata aagtgaaca gaatttgaac 1500
 tgtaagcaag catttctcag gaagtcctgg aagatagcat gcgtgggaag 1550
 taacagttgc taggcttcaa tgcctatcgg tagcaagcca tggaaaaaga 1600
 tgtgtcagct aggtaaagat gacaaaactgc cctgtctggc agtcagcttc 1650
 ccagacagac tatagactat aaatatgtct ccatctgcct taccaagtgt 1700
 tttcttacta caatgctgaa tgactggaaa gaagaactga tatggctagt 1750
 tcagctagct ggtacagata attcaaaaact gctgttggtt ttaattttgt 1800
 aacctgtggc ctgatctgta aataaaaactt acatttttca ataggtaaaa 1850
 aaaaaaaaaa aaaaaa 1866

<210> 174
 <211> 823
 <212> DNA
 <213> Homo sapiens

<400> 174
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 ctcaccattg aggcagctcc actgtctgtg ctggctctgag ggtgctgcct 150
 gtcatggggg cagccatctc ccagggggcc ctcatcgcca tcgtctgcaa 200
 cggctctgtg ggcttcttgc tgctgctgct ctgggtcatc ctctgctggg 250
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 cagagttcag ccagcctggg gtccagaact caagagtccg cctgcttgga 500
 gctggaccca gcggcccaga gtctagccag cttggctcca ataggagctc 550
 agtggcccta aggagatggg cctgggggtgg gggcttatga gttggtgcta 600
 gagccagggc catctggact atgctccatc ccaagggccca agggtcaggg 650
 gccgggtcca ctctttccct aggctgagca cctctaggcc ctctaggttg 700
 gggaagcaaa ctggaacca tggcaataat aggaggggtgt ccaggctggg 750
 cccctccctt ggtcctccca gtgtttgctg gataataaat ggaactatgg 800
 ctctaaaaaa aaaaaaaaaa aaa 823

<210> 175
 <211> 87
 <212> PRT
 <213> Homo sapiens

<400> 175
 Met Gly Ala Ala Ile Ser Gln Gly Ala Leu Ile Ala Ile Val Cys
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 Asn Gly Leu Val Gly Phe Leu Leu Leu Leu Leu Trp Val Ile Leu
 20 25 30
 Cys Trp Ala Cys His Ser Arg Leu Pro Thr Leu Thr Leu Ser Leu
 35 40 45
 Asn Pro Val Pro Thr Pro Ala Leu Ala Pro Val Leu Arg Arg Pro
 50 55 60
 His His Pro Arg Ser Pro Ala Met Lys Ala Ala Thr Cys Cys Ser
 65 70 75
 Pro Glu Gly Pro Trp Pro Ser Leu Glu Pro Arg Thr
 80 85

<210> 176
 <211> 1660
 <212> DNA
 <213> Homo sapiens

<400> 176
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 ccaggtctac cagttcctcc aagcaagtca tttcccttat ttaaccgatg 100
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 atgatgttga caccctccac cgaattctaa gtggaatcat gtcgggaaga 200
 gatacaatcc ttggcctgtg taccctcgca ttagccttgt ctttggccat 250
 gatgtttacc ttcagattca tcaccaccct tctggttcac attttcattt 300
 cattgggttat tttgggattg ttgtttgtct gcggtgtttt atggtggctg 350
 tattatgact ataccaacga cctcagcata gaattggaca cagaaagga 400
 aaatatgaag tgcgtgctgg gggtttgctat cgtatccaca ggcattcacg 450
 cagtgtgctc cgtcttgatt tttgttctca gaaagagaat aaaattgaca 500
 gttgagcttt tccaaatcac aaataaagcc atcagcagtg ctcccttcct 550
 gctgttccag ccactgtgga catttgccat cctcattttt ttctgggtcc 600
 tctgggtggc tgtgctgctg agcctgggaa ctgcaggagc tgcccagggt 650
 atggaaggcg gccaaagtga atataagccc ctttcgggca ttcggtacat 700

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 ctgctgtttc tgggtgtcttg acaaatacct gctccatctc aaccagaatg 1050
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 <211> 445
 <212> PRT
 <213> Homo sapiens

<400> 177
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 35 40 45
 Phe Val Cys Gly Val Leu Trp Trp Leu Tyr Tyr Asp Tyr Thr Asn
 50 55 60

Asp	Leu	Ser	Ile	Glu	Leu	Asp	Thr	Glu	Arg	Glu	Asn	Met	Lys	Cys	
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Val	Leu	Gly	Phe	Ala	Ile	Val	Ser	Thr	Gly	Ile	Thr	Ala	Val	Leu	
				80					85					90	
Leu	Val	Leu	Ile	Phe	Val	Leu	Arg	Lys	Arg	Ile	Lys	Leu	Thr	Val	
				95					100					105	
Glu	Leu	Phe	Gln	Ile	Thr	Asn	Lys	Ala	Ile	Ser	Ser	Ala	Pro	Phe	
				110					115					120	
Leu	Leu	Phe	Gln	Pro	Leu	Trp	Thr	Phe	Ala	Ile	Leu	Ile	Phe	Phe	
				125					130					135	
Trp	Val	Leu	Trp	Val	Ala	Val	Leu	Leu	Ser	Leu	Gly	Thr	Ala	Gly	
				140					145					150	
Ala	Ala	Gln	Val	Met	Glu	Gly	Gly	Gln	Val	Glu	Tyr	Lys	Pro	Leu	
				155					160					165	
Ser	Gly	Ile	Arg	Tyr	Met	Trp	Ser	Tyr	His	Leu	Ile	Gly	Leu	Ile	
				170					175					180	
Trp	Thr	Ser	Glu	Phe	Ile	Leu	Ala	Cys	Gln	Gln	Met	Thr	Ile	Ala	
				185					190					195	
Gly	Ala	Val	Val	Thr	Cys	Tyr	Phe	Asn	Arg	Ser	Lys	Asn	Asp	Pro	
				200					205					210	
Pro	Asp	His	Pro	Ile	Leu	Ser	Ser	Leu	Ser	Ile	Leu	Phe	Phe	Tyr	
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His	Gln	Gly	Thr	Val	Val	Lys	Gly	Ser	Phe	Leu	Ile	Ser	Val	Val	
				230					235					240	
Arg	Ile	Pro	Arg	Ile	Ile	Val	Met	Tyr	Met	Gln	Asn	Ala	Leu	Lys	
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Glu	Gln	Gln	His	Gly	Ala	Leu	Ser	Arg	Tyr	Leu	Phe	Arg	Cys	Cys	
				260					265					270	
Tyr	Cys	Cys	Phe	Trp	Cys	Leu	Asp	Lys	Tyr	Leu	Leu	His	Leu	Asn	
				275					280					285	
Gln	Asn	Ala	Tyr	Thr	Thr	Thr	Ala	Ile	Asn	Gly	Thr	Asp	Phe	Cys	
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Thr	Ser	Ala	Lys	Asp	Ala	Phe	Lys	Ile	Leu	Ser	Lys	Asn	Ser	Ser	
				305					310					315	
His	Phe	Thr	Ser	Ile	Asn	Cys	Phe	Gly	Asp	Phe	Ile	Ile	Phe	Leu	
				320					325					330	
Gly	Lys	Val	Leu	Val	Val	Cys	Phe	Thr	Val	Phe	Gly	Gly	Leu	Met	
				335					340					345	
Ala	Phe	Asn	Tyr	Asn	Arg	Ala	Phe	Gln	Val	Trp	Ala	Val	Pro	Leu	

350	355	360
Leu Leu Val Ala Phe Phe Ala Tyr Leu Val Ala His Ser Phe Leu		
365	370	375
Ser Val Phe Glu Thr Val Leu Asp Ala Leu Phe Leu Cys Phe Ala		
380	385	390
Val Asp Leu Glu Thr Asn Asp Gly Ser Ser Glu Lys Pro Tyr Phe		
395	400	405
Met Asp Gln Glu Phe Leu Ser Phe Val Lys Arg Ser Asn Lys Leu		
410	415	420
Asn Asn Ala Arg Ala Gln Gln Asp Lys His Ser Leu Arg Asn Glu		
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Glu Gly Thr Glu Leu Gln Ala Ile Val Arg		
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 <211> 2773
 <212> DNA
 <213> Homo sapiens

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 aagggaaaaa gaatattcat tctgtgtggt gaaaattttt tgaaaaaaa 150
 attgccttct tcaaacaagg gtgtcattct gatatttatg aggactgttg 200
 ttctcactat gaaggcatct gttattgaaa tggtccttgt tttgctggtg 250
 actggagtac attcaaaca agaaacggca aagaagatta aaaggcccaa 300
 gttcactgtg cctcagatca actgcatgtg caaagccgga aagatcatcg 350
 atcctgagtt cattgtgaaa tgtccagcag gatgccaaga ccccaaatac 400
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 <211> 678
 <212> PRT
 <213> Homo sapiens

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 Ala Lys Lys Ile Lys Arg Pro Lys Phe Thr Val Pro Gln Ile Asn
 35 40 45
 Cys Asp Val Lys Ala Gly Lys Ile Ile Asp Pro Glu Phe Ile Val
 50 55 60
 Lys Cys Pro Ala Gly Cys Gln Asp Pro Lys Tyr His Val Tyr Gly
 65 70 75
 Thr Asp Val Tyr Ala Ser Tyr Ser Ser Val Cys Gly Ala Ala Val
 80 85 90
 His Ser Gly Val Leu Asp Asn Ser Gly Gly Lys Ile Leu Val Arg
 95 100 105
 Lys Val Ala Gly Gln Ser Gly Tyr Lys Gly Ser Tyr Ser Asn Gly
 110 115 120
 Val Gln Ser Leu Ser Leu Pro Arg Trp Arg Glu Ser Phe Ile Val
 125 130 135
 Leu Glu Ser Lys Pro Lys Lys Gly Val Thr Tyr Pro Ser Ala Leu
 140 145 150

Thr	Tyr	Ser	Ser	Ser	Lys	Ser	Pro	Ala	Ala	Gln	Ala	Gly	Glu	Thr	
				155					160					165	
Thr	Lys	Ala	Tyr	Gln	Arg	Pro	Pro	Ile	Pro	Gly	Thr	Thr	Ala	Gln	
				170					175					180	
Pro	Val	Thr	Leu	Met	Gln	Leu	Leu	Ala	Val	Thr	Val	Ala	Val	Ala	
				185					190					195	
Thr	Pro	Thr	Thr	Leu	Pro	Arg	Pro	Ser	Pro	Ser	Ala	Ala	Ser	Thr	
				200					205					210	
Thr	Ser	Ile	Pro	Arg	Pro	Gln	Ser	Val	Gly	His	Arg	Ser	Gln	Glu	
				215					220					225	
Met	Asp	Leu	Trp	Ser	Thr	Ala	Thr	Tyr	Thr	Ser	Ser	Gln	Asn	Arg	
				230					235					240	
Pro	Arg	Ala	Asp	Pro	Gly	Ile	Gln	Arg	Gln	Asp	Pro	Ser	Gly	Ala	
				245					250					255	
Ala	Phe	Gln	Lys	Pro	Val	Gly	Ala	Asp	Val	Ser	Leu	Gly	Leu	Val	
				260					265					270	
Pro	Lys	Glu	Glu	Leu	Ser	Thr	Gln	Ser	Leu	Glu	Pro	Val	Ser	Leu	
				275					280					285	
Gly	Asp	Pro	Asn	Cys	Lys	Ile	Asp	Leu	Ser	Phe	Leu	Ile	Asp	Gly	
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Ser	Thr	Ser	Ile	Gly	Lys	Arg	Arg	Phe	Arg	Ile	Gln	Lys	Gln	Leu	
				305					310					315	
Leu	Ala	Asp	Val	Ala	Gln	Ala	Leu	Asp	Ile	Gly	Pro	Ala	Gly	Pro	
				320					325					330	
Leu	Met	Gly	Val	Val	Gln	Tyr	Gly	Asp	Asn	Pro	Ala	Thr	His	Phe	
				335					340					345	
Asn	Leu	Lys	Thr	His	Thr	Asn	Ser	Arg	Asp	Leu	Lys	Thr	Ala	Ile	
				350					355					360	
Glu	Lys	Ile	Thr	Gln	Arg	Gly	Gly	Leu	Ser	Asn	Val	Gly	Arg	Ala	
				365					370					375	
Ile	Ser	Phe	Val	Thr	Lys	Asn	Phe	Phe	Ser	Lys	Ala	Asn	Gly	Asn	
				380					385					390	
Arg	Ser	Gly	Ala	Pro	Asn	Val	Val	Val	Val	Met	Val	Asp	Gly	Trp	
				395					400					405	
Pro	Thr	Asp	Lys	Val	Glu	Glu	Ala	Ser	Arg	Leu	Ala	Arg	Glu	Ser	
				410					415					420	
Gly	Ile	Asn	Ile	Phe	Phe	Ile	Thr	Ile	Glu	Gly	Ala	Ala	Glu	Asn	
				425					430					435	
Glu	Lys	Gln	Tyr	Val	Val	Glu	Pro	Asn	Phe	Ala	Asn	Lys	Ala	Val	

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	440		445		450
Cys Arg Thr Asn Gly Phe Tyr Ser Leu His Val Gln Ser Trp Phe	455		460		465
Gly Leu His Lys Thr Leu Gln Pro Leu Val Lys Arg Val Cys Asp	470		475		480
Thr Asp Arg Leu Ala Cys Ser Lys Thr Cys Leu Asn Ser Ala Asp	485		490		495
Ile Gly Phe Val Ile Asp Gly Ser Ser Ser Val Gly Thr Gly Asn	500		505		510
Phe Arg Thr Val Leu Gln Phe Val Thr Asn Leu Thr Lys Glu Phe	515		520		525
Glu Ile Ser Asp Thr Asp Thr Arg Ile Gly Ala Val Gln Tyr Thr	530		535		540
Tyr Glu Gln Arg Leu Glu Phe Gly Phe Asp Lys Tyr Ser Ser Lys	545		550		555
Pro Asp Ile Leu Asn Ala Ile Lys Arg Val Gly Tyr Trp Ser Gly	560		565		570
Gly Thr Ser Thr Gly Ala Ala Ile Asn Phe Ala Leu Glu Gln Leu	575		580		585
Phe Lys Lys Ser Lys Pro Asn Lys Arg Lys Leu Met Ile Leu Ile	590		595		600
Thr Asp Gly Arg Ser Tyr Asp Asp Val Arg Ile Pro Ala Met Ala	605		610		615
Ala His Leu Lys Gly Val Ile Thr Tyr Ala Ile Gly Val Ala Trp	620		625		630
Ala Ala Gln Glu Glu Leu Glu Val Ile Ala Thr His Pro Ala Arg	635		640		645
Asp His Ser Phe Phe Val Asp Glu Phe Asp Asn Leu His Gln Tyr	650		655		660
Val Pro Arg Ile Ile Gln Asn Ile Cys Thr Glu Phe Asn Ser Gln	665		670		675

Pro Arg Asn

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<211> 1759

<212> DNA

<213> Homo sapiens

<400> 180

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 <211> 541
 <212> PRT
 <213> Homo sapiens

<400> 181

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Asp	Pro	Ala	His	Tyr	Ser	Phe	Ser	Leu	Thr	Leu	Ile	Asp	Ala	Leu	35	40	45	
Asp	Thr	Leu	Leu	Ile	Leu	Gly	Asn	Val	Ser	Glu	Phe	Gln	Arg	Val	50	55	60	
Val	Glu	Val	Leu	Gln	Asp	Ser	Val	Asp	Phe	Asp	Ile	Asp	Val	Asn	65	70	75	
Ala	Ser	Val	Phe	Glu	Thr	Asn	Ile	Arg	Val	Val	Gly	Gly	Leu	Leu	80	85	90	
Ser	Ala	His	Leu	Leu	Ser	Lys	Lys	Ala	Gly	Val	Glu	Val	Glu	Ala	95	100	105	
Gly	Trp	Pro	Cys	Ser	Gly	Pro	Leu	Leu	Arg	Met	Ala	Glu	Glu	Ala	110	115	120	
Ala	Arg	Lys	Leu	Leu	Pro	Ala	Phe	Gln	Thr	Pro	Thr	Gly	Met	Pro	125	130	135	
Tyr	Gly	Thr	Val	Asn	Leu	Leu	His	Gly	Val	Asn	Pro	Gly	Glu	Thr	140	145	150	
Pro	Val	Thr	Cys	Thr	Ala	Gly	Ile	Gly	Thr	Phe	Ile	Val	Glu	Phe	155	160	165	
Ala	Thr	Leu	Ser	Ser	Leu	Thr	Gly	Asp	Pro	Val	Phe	Glu	Asp	Val	170	175	180	
Ala	Arg	Val	Ala	Leu	Met	Arg	Leu	Trp	Glu	Ser	Arg	Ser	Asp	Ile	185	190	195	
Gly	Leu	Val	Gly	Asn	His	Ile	Asp	Val	Leu	Thr	Gly	Lys	Trp	Val				

				200					205					210
Ala	Gln	Asp	Ala	Gly 215	Ile	Gly	Ala	Gly	Val 220	Asp	Ser	Tyr	Phe	Glu 225
Tyr	Leu	Val	Lys	Gly 230	Ala	Ile	Leu	Leu	Gln 235	Asp	Lys	Lys	Leu	Met 240
Ala	Met	Phe	Leu	Glu 245	Tyr	Asn	Lys	Ala	Ile 250	Arg	Asn	Tyr	Thr	Arg 255
Phe	Asp	Asp	Trp	Tyr 260	Leu	Trp	Val	Gln	Met 265	Tyr	Lys	Gly	Thr	Val 270
Ser	Met	Pro	Val	Phe 275	Gln	Ser	Leu	Glu	Ala 280	Tyr	Trp	Pro	Gly	Leu 285
Gln	Ser	Leu	Ile	Gly 290	Asp	Ile	Asp	Asn	Ala 295	Met	Arg	Thr	Phe	Leu 300
Asn	Tyr	Tyr	Thr	Val 305	Trp	Lys	Gln	Phe	Gly 310	Gly	Leu	Pro	Glu	Phe 315
Tyr	Asn	Ile	Pro	Gln 320	Gly	Tyr	Thr	Val	Glu 325	Lys	Arg	Glu	Gly	Tyr 330
Pro	Leu	Arg	Pro	Glu 335	Leu	Ile	Glu	Ser	Ala 340	Met	Tyr	Leu	Tyr	Arg 345
Ala	Thr	Gly	Asp	Pro 350	Thr	Leu	Leu	Glu	Leu 355	Gly	Arg	Asp	Ala	Val 360
Glu	Ser	Ile	Glu	Lys 365	Ile	Ser	Lys	Val	Glu 370	Cys	Gly	Phe	Ala	Thr 375
Ile	Lys	Asp	Leu	Arg 380	Asp	His	Lys	Leu	Asp 385	Asn	Arg	Met	Glu	Ser 390
Phe	Phe	Leu	Ala	Glu 395	Thr	Val	Lys	Tyr	Leu 400	Tyr	Leu	Leu	Phe	Asp 405
Pro	Thr	Asn	Phe	Ile 410	His	Asn	Asn	Gly	Ser 415	Thr	Phe	Asp	Ala	Val 420
Ile	Thr	Pro	Tyr	Gly 425	Glu	Cys	Ile	Leu	Gly 430	Ala	Gly	Gly	Tyr	Ile 435
Phe	Asn	Thr	Glu	Ala 440	His	Pro	Ile	Asp	Leu 445	Ala	Ala	Leu	His	Cys 450
Cys	Gln	Arg	Leu	Lys 455	Glu	Glu	Gln	Trp	Glu 460	Val	Glu	Asp	Leu	Met 465
Arg	Glu	Phe	Tyr	Ser 470	Leu	Lys	Arg	Ser	Arg 475	Ser	Lys	Phe	Gln	Lys 480
Asn	Thr	Val	Ser	Ser 485	Gly	Pro	Trp	Glu	Pro 490	Pro	Ala	Arg	Pro	Gly 495

Thr Leu Phe Ser Pro Glu Asn His Asp Gln Ala Arg Glu Arg Lys
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Pro Ala Lys Gln Lys Val Pro Leu Leu Ser Cys Pro Ser Gln Pro
515 520 525

Phe Thr Ser Lys Leu Ala Leu Leu Gly Gln Val Phe Leu Asp Ser
530 535 540

Ser

<210> 182

<211> 2056

<212> DNA

<213> Homo sapiens

<400> 182

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gctttattttt ggaaagaaac aatgttctag gtcaaactga gtctacaaaa 250
tgcagacttt cacaatgggt ctagaagaaa tctggacaag tcttttcatg 300
tggtttttct acgcattgat tccatgtttg ctcacagatg aagtggccat 350
tctgcctgcc cctcagaacc tctctgtact ctcaaccaac atgaagcatc 400
tcttgatgtg gagcccagtg atcgcgctg gagaaacagt gtactattct 450
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acctgggttat tgagctggag gacctggggc ccagtttga gttccttgtg 750
gcctactgga ggagggagcc tggtgccgag gaacatgtca aaatggtgag 800
gagtgggggt attccagtg acctagaaac catggagcca ggggctgcat 850
actgtgtgaa ggcccagaca ttcgtgaagg ccattgggag gtacagcgcc 900
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cactgttcgt ctggaaaatg ggccggctgc tccagtactc ctgttgcccc 1050
 gtggtggtcc tcccagacac cttgaaaata accaattcac cccagaagtt 1100
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 aagttgtgtt tctgttttcc gccacggaca agggatgaga gaagtaggaa 1300
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<210> 183
 <211> 311
 <212> PRT
 <213> Homo sapiens

<220>
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 <222> 1-29
 <223> Signal peptide

<220>
 <221> N-glycosylation sites
 <222> 40-43, 134-137
 <223> N-glycosylation sites.

<220>
 <221> Tissue factor proteins homology
 <222> 92-119
 <223> Tissue factor proteins homology

 <220>
 <221> Transmembrane domain
 <222> 230-255
 <223> Transmembrane domain

 <220>
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 <222> 232-262
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 Glu Val Ala Ile Leu Pro Ala Pro Gln Asn Leu Ser Val Leu Ser
 35 40 45

 Thr Asn Met Lys His Leu Leu Met Trp Ser Pro Val Ile Ala Pro
 50 55 60

 Gly Glu Thr Val Tyr Tyr Ser Val Glu Tyr Gln Gly Glu Tyr Glu
 65 70 75

 Ser Leu Tyr Thr Ser His Ile Trp Ile Pro Ser Ser Trp Cys Ser
 80 85 90

 Leu Thr Glu Gly Pro Glu Cys Asp Val Thr Asp Asp Ile Thr Ala
 95 100 105

 Thr Val Pro Tyr Asn Leu Arg Val Arg Ala Thr Leu Gly Ser Gln
 110 115 120

 Thr Ser Ala Trp Ser Ile Leu Lys His Pro Phe Asn Arg Asn Ser
 125 130 135

 Thr Ile Leu Thr Arg Pro Gly Met Glu Ile Thr Lys Asp Gly Phe
 140 145 150

 His Leu Val Ile Glu Leu Glu Asp Leu Gly Pro Gln Phe Glu Phe
 155 160 165

 Leu Val Ala Tyr Trp Arg Arg Glu Pro Gly Ala Glu Glu His Val
 170 175 180

 Lys Met Val Arg Ser Gly Gly Ile Pro Val His Leu Glu Thr Met
 185 190 195

 Glu Pro Gly Ala Ala Tyr Cys Val Lys Ala Gln Thr Phe Val Lys
 200 205 210

Ala	Ile	Gly	Arg	Tyr	Ser	Ala	Phe	Ser	Gln	Thr	Glu	Cys	Val	Glu
				215					220					225
Val	Gln	Gly	Glu	Ala	Ile	Pro	Leu	Val	Leu	Ala	Leu	Phe	Ala	Phe
				230					235					240
Val	Gly	Phe	Met	Leu	Ile	Leu	Val	Val	Val	Pro	Leu	Phe	Val	Trp
				245					250					255
Lys	Met	Gly	Arg	Leu	Leu	Gln	Tyr	Ser	Cys	Cys	Pro	Val	Val	Val
				260					265					270
Leu	Pro	Asp	Thr	Leu	Lys	Ile	Thr	Asn	Ser	Pro	Gln	Lys	Leu	Ile
				275					280					285
Ser	Cys	Arg	Arg	Glu	Glu	Val	Asp	Ala	Cys	Ala	Thr	Ala	Val	Met
				290					295					300
Ser	Pro	Glu	Glu	Leu	Leu	Arg	Ala	Trp	Ile	Ser				
				305					310					

<210> 184
 <211> 808
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 654, 711, 748
 <223> unknown base

<400> 184
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 tagacctcag ctccaacata tgcattctga agaaagatgg ctgagatgac 150
 agaatgcttt attttgaaa gaaacaatgt tctaggtcaa actgagtcta 200
 ccaaatgcag actttcacaa tggttctaga agaaatctgg acaagtcttt 250
 tcatgtggtt tttctacgca ttgattccat gtttgctcac agatgaagtg 300
 gccattctgc ctgccccctca gaacctctct gtactctcaa ccaacatgaa 350
 gcatctcttg atgtggagcc cagtgatcgc gcctggagaa acagtgtact 400
 attctgtcga ataccagggg gactacgaga gcctgtacac gagccacatc 450
 tggatcccca gcagctggtg ctactcact gaaggtcctg agtgtgatgt 500
 cactgatgac atcacggcca ctgtgccata caacctttgt gtcagggccca 550
 cattgggctc acagacctca gcctggagca tcctgaagca tccctttaat 600
 agaaactcaa ccacacctac ccgacctggg atggagatca ccaaagatgg 650

cttnacactg gttattgagc tggaggacct ggggccccag tttgagttcc 700
 ttgtggccta ntggaggagg ggcgaacccc ttgcggcgca aggggttngc 750
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 tgaccac 808

<210> 185
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 185
 aggcttcgct gcgactagac ctc 23

<210> 186
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 186
 ccaggtcggg taaggatggt tgag 24

<210> 187
 <211> 50
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 187
 tttctacga ttgattccat gtttgctcac agatgaagtg gccattctgc 50

<210> 188
 <211> 1227
 <212> DNA
 <213> Homo sapiens

<400> 188
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 ggcagcggcg tggtgctcc tgtgggctgc ggctgcgcg cagcaggagc 100
 aggacttcta cgacttcaag gcggtcaaca tccggggcaa actggtgtcg 150
 ctggagaagt accgcggatc ggtgtccctg gtggtgaatg tggccagcga 200
 gtgcggcttc acagaccagc actaccgagc cctgcagcag ctgcagcgag 250
 acctgggccc ccaccacttt aacgtgctcg ccttcccctg caaccagttt 300

Pro	His	His	Phe	Asn	Val	Leu	Ala	Phe	Pro	Cys	Asn	Gln	Phe	Gly	80	85	90
Gln	Gln	Glu	Pro	Asp	Ser	Asn	Lys	Glu	Ile	Glu	Ser	Phe	Ala	Arg	95	100	105
Arg	Thr	Tyr	Ser	Val	Ser	Phe	Pro	Met	Phe	Ser	Lys	Ile	Ala	Val	110	115	120
Thr	Gly	Thr	Gly	Ala	His	Pro	Ala	Phe	Lys	Tyr	Leu	Ala	Gln	Thr	125	130	135
Ser	Gly	Lys	Glu	Pro	Thr	Trp	Asn	Phe	Trp	Lys	Tyr	Leu	Val	Ala	140	145	150
Pro	Asp	Gly	Lys	Val	Val	Gly	Ala	Trp	Asp	Pro	Thr	Val	Ser	Val	155	160	165
Glu	Glu	Val	Arg	Pro	Gln	Ile	Thr	Ala	Leu	Val	Arg	Lys	Leu	Ile	170	175	180
Leu	Leu	Lys	Arg	Glu	Asp	Leu									185		

<210> 190
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 190
 gcaggacttc tacgacttca aggc 24

<210> 191
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 191
 agtctgggcc aggtacttga aggc 24

<210> 192
 <211> 50
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 192
 caacatccgg ggcaaactgg tgctgctgga gaagtaccgc ggatcgggtgt 50

<210> 193

<211> 2187
 <212> DNA
 <213> Homo sapiens

<400> 193
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 acgtcgggat gctgcgcctg gggaggctgt gcgccgggag ctccgggggtg 100
 ctggggggccc gggccgccct ctctcggagt tggcaggaag ccaggttgca 150
 ggggtgtccgc ttccctcagtt ccagagaggt ggatcgcatt gtctccacgc 200
 ccatcggagg cctcagctac gttcaggggt gcaccaaaaa gcatcttaac 250
 agcaagactg tgggccagtg cctggagacc acagcacaga ggggtcccaga 300
 acgagaggcc ttggtcgtcc tccatgaaga cgtcagggtg acctttgccc 350
 aactcaagga ggagggtggac aaagctgctt ctggcctcct gagcattggc 400
 ctctgcaaag gtgaccggct gggcatgtgg ggacctaaact cctatgcatg 450
 ggtgctcatg cagttggcca ccgcccaggc gggcatcatt ctgggtgtctg 500
 tgaacccagc ctaccaggct atggaactgg agtatgtcct caagaagggtg 550
 ggctgcaagg cccttgtgtt cccaagcaa ttcaagacct agcaatacta 600
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 ccttgaagag tcagaggctc ccagatctga ccacagtcatt ctccggtggat 700
 gcccttttgc cggggaccct gctcctggat gaagtgggtg cggctggcag 750
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 gccatgacct catcaacatc cagttcacct cggggacaac aggcagcccc 850
 aagggggcca ccctctccca ctacaacatt gtcaacaact ccaacatttt 900
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 tcctgccccaa cccctgttac cattgcctgg gttccgtggc aggcacaatg 1000
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 atggtacccc cacgatgttc gtggacattc tgaaccagcc agacttctcc 1150
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 acctccagag ttgatccgag ccatcatcaa caagataaat atgaaggacc 1250
 tgggtggttc ttatggaacc acagagaaca gtcccgtgac attcgcgcac 1300
 ttccctgagg aactgtgga gcagaaggca gaaagcgtgg gcagaattat 1350

0941992082801

Leu	Val	Val	Leu	His	Glu	Asp	Val	Arg	Leu	Thr	Phe	Ala	Gln	Leu	
				95					100					105	
Lys	Glu	Glu	Val	Asp	Lys	Ala	Ala	Ser	Gly	Leu	Leu	Ser	Ile	Gly	
				110					115					120	
Leu	Cys	Lys	Gly	Asp	Arg	Leu	Gly	Met	Trp	Gly	Pro	Asn	Ser	Tyr	
				125					130					135	
Ala	Trp	Val	Leu	Met	Gln	Leu	Ala	Thr	Ala	Gln	Ala	Gly	Ile	Ile	
				140					145					150	
Leu	Val	Ser	Val	Asn	Pro	Ala	Tyr	Gln	Ala	Met	Glu	Leu	Glu	Tyr	
				155					160					165	
Val	Leu	Lys	Lys	Val	Gly	Cys	Lys	Ala	Leu	Val	Phe	Pro	Lys	Gln	
				170					175					180	
Phe	Lys	Thr	Gln	Gln	Tyr	Tyr	Asn	Val	Leu	Lys	Gln	Ile	Cys	Pro	
				185					190					195	
Glu	Val	Glu	Asn	Ala	Gln	Pro	Gly	Ala	Leu	Lys	Ser	Gln	Arg	Leu	
				200					205					210	
Pro	Asp	Leu	Thr	Thr	Val	Ile	Ser	Val	Asp	Ala	Pro	Leu	Pro	Gly	
				215					220					225	
Thr	Leu	Leu	Leu	Asp	Glu	Val	Val	Ala	Ala	Gly	Ser	Thr	Arg	Gln	
				230					235					240	
His	Leu	Asp	Gln	Leu	Gln	Tyr	Asn	Gln	Gln	Phe	Leu	Ser	Cys	His	
				245					250					255	
Asp	Pro	Ile	Asn	Ile	Gln	Phe	Thr	Ser	Gly	Thr	Thr	Gly	Ser	Pro	
				260					265					270	
Lys	Gly	Ala	Thr	Leu	Ser	His	Tyr	Asn	Ile	Val	Asn	Asn	Ser	Asn	
				275					280					285	
Ile	Leu	Gly	Glu	Arg	Leu	Lys	Leu	His	Glu	Lys	Thr	Pro	Glu	Gln	
				290					295					300	
Leu	Arg	Met	Ile	Leu	Pro	Asn	Pro	Leu	Tyr	His	Cys	Leu	Gly	Ser	
				305					310					315	
Val	Ala	Gly	Thr	Met	Met	Cys	Leu	Met	Tyr	Gly	Ala	Thr	Leu	Ile	
				320					325					330	
Leu	Ala	Ser	Pro	Ile	Phe	Asn	Gly	Lys	Lys	Ala	Leu	Glu	Ala	Ile	
				335					340					345	
Ser	Arg	Glu	Arg	Gly	Thr	Phe	Leu	Tyr	Gly	Thr	Pro	Thr	Met	Phe	
				350					355					360	
Val	Asp	Ile	Leu	Asn	Gln	Pro	Asp	Phe	Ser	Ser	Tyr	Asp	Ile	Ser	
				365					370					375	
Thr	Met	Cys	Gly	Gly	Val	Ile	Ala	Gly	Ser	Pro	Ala	Pro	Pro	Glu	

	380		385		390
Leu Ile Arg Ala	Ile Ile Asn Lys Ile	Asn Met Lys Asp Leu	Val		
	395		400		405
Val Ala Tyr Gly	Thr Thr Glu Asn Ser	Pro Val Thr Phe Ala	His		
	410		415		420
Phe Pro Glu Asp	Thr Val Glu Gln Lys	Ala Glu Ser Val Gly	Arg		
	425		430		435
Ile Met Pro His	Thr Glu Ala Arg Ile	Met Asn Met Glu Ala	Gly		
	440		445		450
Thr Leu Ala Lys	Leu Asn Thr Pro Gly	Glu Leu Cys Ile Arg	Gly		
	455		460		465
Tyr Cys Val Met	Leu Gly Tyr Trp Gly	Glu Pro Gln Lys Thr	Glu		
	470		475		480
Glu Ala Val Asp	Gln Asp Lys Trp Tyr	Trp Thr Gly Asp Val	Ala		
	485		490		495
Thr Met Asn Glu	Gln Gly Phe Cys Lys	Ile Val Gly Arg Ser	Lys		
	500		505		510
Asp Met Ile Ile	Arg Gly Gly Glu Asn	Ile Tyr Pro Ala Glu	Leu		
	515		520		525
Glu Asp Phe Phe	His Thr His Pro Lys	Val Gln Glu Val Gln	Val		
	530		535		540
Val Gly Val Lys	Asp Asp Arg Met Gly	Glu Glu Ile Cys Ala	Cys		
	545		550		555
Ile Arg Leu Lys	Asp Gly Glu Glu Thr	Thr Val Glu Glu Ile	Lys		
	560		565		570
Ala Phe Cys Lys	Gly Lys Ile Ser His	Phe Lys Ile Pro Lys	Tyr		
	575		580		585
Ile Val Phe Val	Thr Asn Tyr Pro Leu	Thr Ile Ser Gly Lys	Ile		
	590		595		600
Gln Lys Phe Lys	Leu Arg Glu Gln Met	Glu Arg His Leu Asn	Leu		
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<210> 195

<211> 642

<212> DNA

<213> Homo sapiens

<400> 195

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gtggcaggca caatgatgtg tctgatgtac ggtgccaccc tcatacctggc 150

ctctcccatc ttcaatggca agaaggcact ggaggccatc agcagagaga 200
gaggcacctt cctgtatggt acccccacga tgttcgtgga cattctgaac 250
cagccagact tctccagtta tgacatctcg accatgtgtg gaggtgtcat 300
tgctgggtcc cctgcacctc cagagttgat ccgagccatc atcaacaaga 350
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cagggacgct ggcaaagctg aacacgcccc gggagctgtg catccgaggg 550
tactgcgtca tgctgggcta ctgggggtgag cctcagaaga cagaggaagc 600
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<210> 196
<211> 1575
<212> DNA
<213> Homo sapiens

<400> 196
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aggccctgga gtgctacagc tgcgtgcaga aagcagatga cggatgctcc 150
ccgaacaaga tgaagacagt gaagtgcgcg cggggcgtgg acgtctgcac 200
cgaggccgtg ggggcgggtg agaccatcca cggacaattc tcgctggcag 250
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atgagagtgc ataccgccc aacggcgtgg agtgctacag ctgtgtgggc 450
ctgagccggg aggcgtgcca gggtagatcg ccgcccgtcg tgagctgcta 500
caacgccagc gatcatgtct acaagggctg cttcgacggc aacgtcacct 550
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 ccaattcgcc ctatagttag tcgta 1575

<210> 197

<211> 346

<212> PRT

<213> Homo sapiens

<400> 197

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Ala	Gly	Trp	Leu	Leu	Leu	Leu	Leu	Arg	Gly	Gly	Ala	Gln	Ala	
			20					25				30		
Leu	Glu	Cys	Tyr	Ser	Cys	Val	Gln	Lys	Ala	Asp	Asp	Gly	Cys	Ser
				35				40				45		
Pro	Asn	Lys	Met	Lys	Thr	Val	Lys	Cys	Ala	Pro	Gly	Val	Asp	Val
				50				55				60		
Cys	Thr	Glu	Ala	Val	Gly	Ala	Val	Glu	Thr	Ile	His	Gly	Gln	Phe
				65				70				75		
Ser	Leu	Ala	Val	Arg	Gly	Cys	Gly	Ser	Gly	Leu	Pro	Gly	Lys	Asn
				80				85				90		
Asp	Arg	Gly	Leu	Asp	Leu	His	Gly	Leu	Leu	Ala	Phe	Ile	Gln	Leu
				95				100					105	

Gln	Gln	Cys	Ala	Gln	Asp	Arg	Cys	Asn	Ala	Lys	Leu	Asn	Leu	Thr	
				110					115					120	
Ser	Arg	Ala	Leu	Asp	Pro	Ala	Gly	Asn	Glu	Ser	Ala	Tyr	Pro	Pro	
				125					130					135	
Asn	Gly	Val	Glu	Cys	Tyr	Ser	Cys	Val	Gly	Leu	Ser	Arg	Glu	Ala	
				140					145					150	
Cys	Gln	Gly	Thr	Ser	Pro	Pro	Val	Val	Ser	Cys	Tyr	Asn	Ala	Ser	
				155					160					165	
Asp	His	Val	Tyr	Lys	Gly	Cys	Phe	Asp	Gly	Asn	Val	Thr	Leu	Thr	
				170					175					180	
Ala	Ala	Asn	Val	Thr	Val	Ser	Leu	Pro	Val	Arg	Gly	Cys	Val	Gln	
				185					190					195	
Asp	Glu	Phe	Cys	Thr	Arg	Asp	Gly	Val	Thr	Gly	Pro	Gly	Phe	Thr	
				200					205					210	
Leu	Ser	Gly	Ser	Cys	Cys	Gln	Gly	Ser	Arg	Cys	Asn	Ser	Asp	Leu	
				215					220					225	
Arg	Asn	Lys	Thr	Tyr	Phe	Ser	Pro	Arg	Ile	Pro	Pro	Leu	Val	Arg	
				230					235					240	
Leu	Pro	Pro	Pro	Glu	Pro	Thr	Thr	Val	Ala	Ser	Thr	Thr	Ser	Val	
				245					250					255	
Thr	Thr	Ser	Thr	Ser	Ala	Pro	Val	Arg	Pro	Thr	Ser	Thr	Thr	Lys	
				260					265					270	
Pro	Met	Pro	Ala	Pro	Thr	Ser	Gln	Thr	Pro	Arg	Gln	Gly	Val	Glu	
				275					280					285	
His	Glu	Ala	Ser	Arg	Asp	Glu	Glu	Pro	Arg	Leu	Thr	Gly	Gly	Ala	
				290					295					300	
Ala	Gly	His	Gln	Asp	Arg	Ser	Asn	Ser	Gly	Gln	Tyr	Pro	Ala	Lys	
				305					310					315	
Gly	Gly	Pro	Gln	Gln	Pro	His	Asn	Lys	Gly	Cys	Val	Ala	Pro	Thr	
				320					325					330	
Ala	Gly	Leu	Ala	Ala	Leu	Leu	Leu	Ala	Val	Ala	Ala	Gly	Val	Leu	
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Leu

<210> 198

<211> 1657

<212> DNA

<213> Homo sapiens

<400> 198

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tgattaccag accctgagga ttgggggact ggtgttcgct gtggtcctct 200
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SECRET

<400>	199																		
Met	Glu	Leu	Val	Leu	Val	Phe	Leu	Cys	Ser	Leu	Leu	Ala	Pro	Met					
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Val	Leu	Ala	Ser	Ala	Ala	Glu	Lys	Glu	Lys	Glu	Met	Asp	Pro	Phe					
				20					25					30					
His	Tyr	Asp	Tyr	Gln	Thr	Leu	Arg	Ile	Gly	Gly	Leu	Val	Phe	Ala					
				35					40					45					
Val	Val	Leu	Phe	Ser	Val	Gly	Ile	Leu	Leu	Ile	Leu	Ser	Arg	Arg					
				50					55					60					
Cys	Lys	Cys	Ser	Phe	Asn	Gln	Lys	Pro	Arg	Ala	Pro	Gly	Asp	Glu					
				65					70					75					
Glu	Ala	Gln	Val	Glu	Asn	Leu	Ile	Thr	Ala	Asn	Ala	Thr	Glu	Pro					
				80					85					90					
Gln	Lys	Gln	Arg	Thr	Glu	Val	Gln	Pro	Ser	Gly	Gly	Ser	Leu	Trp					
				95					100					105					
Asn	Leu	Arg	Arg	Leu	Leu	Glu	Pro	Leu	Asp	Ala	Asn	Val	Asp	Ala					
				110					115					120					

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cctgaactgg	cacgccctct	ttgagtctat	caaaaggaaa	cttcctttcc	250	
tcaactggga	tgcttttctt	aagctgaaag	gactgaggag	cgcaactcct	300	
gatgcccggt	gaccatgacc	tccactggaa	gaggggggcta	gcgtgagcgc	350	

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cattttccat ccaaa 415

<210> 201
<211> 99
<212> PRT
<213> Homo sapiens

<400> 201
Met Lys Ile Pro Val Leu Pro Ala Val Val Leu Leu Ser Leu Leu
1 5 10 15
Val Leu His Ser Ala Gln Gly Ala Thr Leu Gly Gly Pro Glu Glu
20 25 30
Glu Ser Thr Ile Glu Asn Tyr Ala Ser Arg Pro Glu Ala Phe Asn
35 40 45
Thr Pro Phe Leu Asn Ile Asp Lys Leu Arg Ser Ala Phe Lys Ala
50 55 60
Asp Glu Phe Leu Asn Trp His Ala Leu Phe Glu Ser Ile Lys Arg
65 70 75
Lys Leu Pro Phe Leu Asn Trp Asp Ala Phe Pro Lys Leu Lys Gly
80 85 90
Leu Arg Ser Ala Thr Pro Asp Ala Gln
95

<210> 202
<211> 678
<212> DNA
<213> Homo sapiens

<400> 202
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cagcaggagt ctcccagggt gttcttctcc agccagttcc aactcaggag 150
acaggtccca aggccatggg agatctctcc tgtggctttg ccggccactc 200
atgagagtgt ttttgtgtaa agtatttttt agaatactgt tgacttcttc 250
atgatttaat aaccatcctt tgccaagttt tatgaggctt taggggaatg 300
tcaaccctca aatttttggt atactagatg gcttccattt acccaccact 350
attttaaggt ccctttatct ttaggttcaa gggttcattg acttgagaaa 400
gtgcccttct gcagcttcat tgattttggt tatcttcact attaattgta 450
acgattaaaa aagaataaga gcacgcagac ctctaggaga atattttatc 500
cctgggtgcc cctgacacat ttatgtagtg atcccacaaa tgtgattggt 550

aattttaaag ttatttctaatt attagtagat tcagttgtga tgtaatatga 600
 ataaccagaa tctatttctt aaaagttttg agtatatttt tcaactagat 650
 atttgtatag aaagactgaa tagtgatg 678

<210> 203
 <211> 52
 <212> PRT
 <213> Homo sapiens

<400> 203
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 Ser Leu Leu Ala Ala Gly Val Ser Gln Val Val Leu Leu Gln Pro
 20 25 30
 Val Pro Thr Gln Glu Thr Gly Pro Lys Ala Met Gly Asp Leu Ser
 35 40 45
 Cys Gly Phe Ala Gly His Ser
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<210> 204
 <211> 1917
 <212> DNA
 <213> Homo sapiens

<400> 204
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 tctttggaga attacgaacc atgttcaagt caaaactgca gctgctacca 200
 tgggtgtcata gaagaggatc taactccttt ccgaggaggc atctccagga 250
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 actaagaaca gactgtaccg ggaaaatgac tgcattgttc cctcaagggt 350
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 ctgcaagttt ccgggtttaa cacctcttcc tgtgtggctc acttgttttc 900
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 ggtttctata atgccacata gaaagaggcc aattgcatga gtaattattg 1850
 caattggatt tcaggttccc ttttgtgcc ttcatgccct acttcttaat 1900
 gcctctctaa agccaaa 1917

<210> 205

<211> 392

<212> PRT

<213> Homo sapiens

<400> 205

Met	Glu	Trp	Trp	Ala	Ser	Ser	Pro	Leu	Arg	Leu	Trp	Leu	Leu	Leu
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Phe	Leu	Leu	Pro	Ser	Ala	Gln	Gly	Arg	Gln	Lys	Glu	Ser	Gly	Ser	20	25	30
Lys	Trp	Lys	Val	Phe	Ile	Asp	Gln	Ile	Asn	Arg	Ser	Leu	Glu	Asn	35	40	45
Tyr	Glu	Pro	Cys	Ser	Ser	Gln	Asn	Cys	Ser	Cys	Tyr	His	Gly	Val	50	55	60
Ile	Glu	Glu	Asp	Leu	Thr	Pro	Phe	Arg	Gly	Gly	Ile	Ser	Arg	Lys	65	70	75
Met	Met	Ala	Glu	Val	Val	Arg	Arg	Lys	Leu	Gly	Thr	His	Tyr	Gln	80	85	90
Ile	Thr	Lys	Asn	Arg	Leu	Tyr	Arg	Glu	Asn	Asp	Cys	Met	Phe	Pro	95	100	105
Ser	Arg	Cys	Ser	Gly	Val	Glu	His	Phe	Ile	Leu	Glu	Val	Ile	Gly	110	115	120
Arg	Leu	Pro	Asp	Met	Glu	Met	Val	Ile	Asn	Val	Arg	Asp	Tyr	Pro	125	130	135
Gln	Val	Pro	Lys	Trp	Met	Glu	Pro	Ala	Ile	Pro	Val	Phe	Ser	Phe	140	145	150
Ser	Lys	Thr	Ser	Glu	Tyr	His	Asp	Ile	Met	Tyr	Pro	Ala	Trp	Thr	155	160	165
Phe	Trp	Glu	Gly	Gly	Pro	Ala	Val	Trp	Pro	Ile	Tyr	Pro	Thr	Gly	170	175	180
Leu	Gly	Arg	Trp	Asp	Leu	Phe	Arg	Glu	Asp	Leu	Val	Arg	Ser	Ala	185	190	195
Ala	Gln	Trp	Pro	Trp	Lys	Lys	Lys	Asn	Ser	Thr	Ala	Tyr	Phe	Arg	200	205	210
Gly	Ser	Arg	Thr	Ser	Pro	Glu	Arg	Asp	Pro	Leu	Ile	Leu	Leu	Ser	215	220	225
Arg	Lys	Asn	Pro	Lys	Leu	Val	Asp	Ala	Glu	Tyr	Thr	Lys	Asn	Gln	230	235	240
Ala	Trp	Lys	Ser	Met	Lys	Asp	Thr	Leu	Gly	Lys	Pro	Ala	Ala	Lys	245	250	255
Asp	Val	His	Leu	Val	Asp	His	Cys	Lys	Tyr	Lys	Tyr	Leu	Phe	Asn	260	265	270
Phe	Arg	Gly	Val	Ala	Ala	Ser	Phe	Arg	Phe	Lys	His	Leu	Phe	Leu	275	280	285
Cys	Gly	Ser	Leu	Val	Phe	His	Val	Gly	Asp	Glu	Trp	Leu	Glu	Phe	290	295	300
Phe	Tyr	Pro	Gln	Leu	Lys	Pro	Trp	Val	His	Tyr	Ile	Pro	Val	Lys			

	305		310		315
Thr Asp Leu Ser Asn Val Gln Glu Leu Leu Gln Phe Val Lys Ala					
	320		325		330
Asn Asp Asp Val Ala Gln Glu Ile Ala Glu Arg Gly Ser Gln Phe					
	335		340		345
Ile Arg Asn His Leu Gln Met Asp Asp Ile Thr Cys Tyr Trp Glu					
	350		355		360
Asn Leu Leu Ser Glu Tyr Ser Lys Phe Leu Ser Tyr Asn Val Thr					
	365		370		375
Arg Arg Lys Gly Tyr Asp Gln Ile Ile Pro Lys Met Leu Lys Thr					
	380		385		390
Glu Leu					

<210> 206
 <211> 1425
 <212> DNA
 <213> Homo sapiens

<400> 206
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 ggatgccgc cagggatggc tggctgccct gcaggaccgc agcatccttg 200
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<210> 207

<211> 262

<212> PRT

<213> Homo sapiens

<400> 207

Met	Ala	Pro	Ala	Leu	Leu	Leu	Ile	Pro	Ala	Ala	Leu	Ala	Ser	Phe
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Ile	Leu	Ala	Phe	Gly	Thr	Gly	Val	Glu	Phe	Val	Arg	Phe	Thr	Ser
				20					25					30
Leu	Arg	Pro	Leu	Leu	Gly	Gly	Ile	Pro	Glu	Ser	Gly	Gly	Pro	Asp
				35					40					45
Ala	Arg	Gln	Gly	Trp	Leu	Ala	Ala	Leu	Gln	Asp	Arg	Ser	Ile	Leu
				50					55					60
Ala	Pro	Leu	Ala	Trp	Asp	Leu	Gly	Leu	Leu	Leu	Phe	Val	Gly	
				65					70				75	
Gln	His	Ser	Leu	Met	Ala	Ala	Glu	Arg	Val	Lys	Ala	Trp	Thr	Ser
				80					85					90
Arg	Tyr	Phe	Gly	Val	Leu	Gln	Arg	Ser	Leu	Tyr	Val	Ala	Cys	Thr
				95					100					105
Ala	Leu	Ala	Leu	Gln	Leu	Val	Met	Arg	Tyr	Trp	Glu	Pro	Ile	Pro
				110					115					120
Lys	Gly	Pro	Val	Leu	Trp	Glu	Ala	Arg	Ala	Glu	Pro	Trp	Ala	Thr
				125					130					135

Trp Val Pro Leu Leu Cys Phe Val Leu His Val Ile Ser Trp Leu
 140 145 150
 Leu Ile Phe Ser Ile Leu Leu Val Phe Asp Tyr Ala Glu Leu Met
 155 160 165
 Gly Leu Lys Gln Val Tyr Tyr His Val Leu Gly Leu Gly Glu Pro
 170 175 180
 Leu Ala Leu Lys Ser Pro Arg Ala Leu Arg Leu Phe Ser His Leu
 185 190 195
 Arg His Pro Val Cys Val Glu Leu Leu Thr Val Leu Trp Val Val
 200 205 210
 Pro Thr Leu Gly Thr Asp Arg Leu Leu Leu Ala Phe Leu Leu Thr
 215 220 225
 Leu Tyr Leu Gly Leu Ala His Gly Leu Asp Gln Gln Asp Leu Arg
 230 235 240
 Tyr Leu Arg Ala Gln Leu Gln Arg Lys Leu His Leu Leu Ser Arg
 245 250 255
 Pro Gln Asp Gly Glu Ala Glu
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<210> 208
 <211> 2095
 <212> DNA
 <213> Homo sapiens

<400> 208
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 gtagttcaca acagatctga gtgttttaat taagcatgga atacagaaaa 150
 caacaaaaaa cttaagcttt aatttcatct ggaattccac agttttctta 200
 gctccctgga cccggttgac ctgttggtctc ttcccgtggt ctgctctatc 250
 acgtggtgct ctccgactac tcaccccgag tgtaaagaac cttcggctcg 300
 cgtgcttctg agctgctgtg gatggcctcg gctctctgga ctgtccttcc 350
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 atagaacgag tgaactggat gtacttctat gagtatgagc cgatttacag 500
 acaagacttt cacttcacac ttcgagagca ttcaaactgc tctcatcaaa 550
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 aggcaggcca ttagagttac ttgggggtgaa aaaaagtctt ggtggggata 650

tgagggttctt acatttttct tattaggcca agaggctgaa aaggaagaca 700
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 tatggcattc aggtgggtaa ctgagttttg cccaatgcc aagtacgtaa 850
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 cttttaaac taaaccactc agagaagttt ttcacaggtt atcctctaata 950
 tgataattat tcctatagag gattttacca aaaaacccat atttcttacc 1000
 aggagtatcc tttcaagggtg ttccctccat actgcagtgg gttgggttat 1050
 ataatgtcca gagatttggg gcccaaggatc tatgaaatga tgggtcacgt 1100
 aaaacccatc aagtttgaag atgtttatgt cgggatctgt ttgaatttat 1150
 taaaagtga cttcatatt ccagaagaca caaatctttt ctttctatat 1200
 agaatccatt tggatgtctg tcaactgaga cgtgtgattg cagcccatgg 1250
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 ggaggtcagt gtgctggctt aactgaact gaaactcatg aaaaaccag 1450
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 gatgatatgt ggaggaatta aatataaagg aattggaggt ttttgctaaa 1550
 gaaattaata ggaccaaaca atttgacat gtcattctgt agactagaat 1600
 ttcttaaaag ggtgttactg agttataagc tcactaggct gtaaaaacaa 1650
 aacaatgtag agttttattt attgaacaat gtagtcactt gaaggttttg 1700
 tgtatatctt atgtggatta ccaatttaaa aatatatgta gttctgtgtc 1750
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 gtcatttata aagtacttca agatgttgca gtatttcaca gttattatta 1850
 tttaaaatta cttcaacttt gtgtttttta atgttttgac gatttcaata 1900
 caagataaaa aggatagtga atcattcttt acatgcaaac attttccagt 1950
 tacttaactg atcagtttat tattgatata tcactccatt aatgtaaagt 2000
 cataggtcat tattgcatat cagtaatctc ttggactttg ttaaatattt 2050
 tactgtggta atatagagaa gaattaaagc aagaaaatct gaaaa 2095

SECRET

Met	Ala	Ser	Ala	Leu	Trp	Thr	Val	Leu		Ser	Arg	Met	Ser		100
1				5					10						15
Arg	Ser	Leu	Lys	Trp	Ser	Leu	Leu	Leu	Leu	Ser	Leu	Leu	Ser	Phe	20
				20					25					30	
Phe	Val	Met	Trp	Tyr	Leu	Ser	Leu	Pro	His	Tyr	Asn	Val	Ile	Glu	35
				35					40					45	
Arg	Val	Asn	Trp	Met	Tyr	Phe	Tyr	Glu	Tyr	Glu	Pro	Ile	Tyr	Arg	50
				50					55					60	
Gln	Asp	Phe	His	Phe	Thr	Leu	Arg	Glu	His	Ser	Asn	Cys	Ser	His	65
				65					70					75	
Gln	Asn	Pro	Phe	Leu	Val	Ile	Leu	Val	Thr	Ser	His	Pro	Ser	Asp	80
				80					85					90	
Val	Lys	Ala	Arg	Gln	Ala	Ile	Arg	Val	Thr	Trp	Gly	Glu	Lys	Lys	95
				95					100					105	
Ser	Trp	Trp	Gly	Tyr	Glu	Val	Leu	Thr	Phe	Phe	Leu	Leu	Gly	Gln	110
				110					115					120	
Glu	Ala	Glu	Lys	Glu	Asp	Lys	Met	Leu	Ala	Leu	Ser	Leu	Glu	Asp	125
				125					130					135	
Glu	His	Leu	Leu	Tyr	Gly	Asp	Ile	Ile	Arg	Gln	Asp	Phe	Leu	Asp	140
				140					145					150	
Thr	Tyr	Asn	Asn	Leu	Thr	Leu	Lys	Thr	Ile	Met	Ala	Phe	Arg	Trp	155
				155					160					165	
Val	Thr	Glu	Phe	Cys	Pro	Asn	Ala	Lys	Tyr	Val	Met	Lys	Thr	Asp	170
				170					175					180	
Thr	Asp	Val	Phe	Ile	Asn	Thr	Gly	Asn	Leu	Val	Lys	Tyr	Leu	Leu	185
				185					190					195	
Asn	Leu	Asn	His	Ser	Glu	Lys	Phe	Phe	Thr	Gly	Tyr	Pro	Leu	Ile	200
				200					205					210	
Asp	Asn	Tyr	Ser	Tyr	Arg	Gly	Phe	Tyr	Gln	Lys	Thr	His	Ile	Ser	215
				215					220					225	
Tyr	Gln	Glu	Tyr	Pro	Phe	Lys	Val	Phe	Pro	Pro	Tyr	Cys	Ser	Gly	230
				230					235					240	
Leu	Gly	Tyr	Ile	Met	Ser	Arg	Asp	Leu	Val	Pro	Arg	Ile	Tyr	Glu	245
				245					250					255	
Met	Met	Gly	His	Val	Lys	Pro	Ile	Lys	Phe	Glu	Asp	Val	Tyr	Val	

	260		265		270
Gly Ile Cys Leu Asn Leu Leu Lys Val Asn Ile His Ile Pro Glu					
	275		280		285
Asp Thr Asn Leu Phe Phe Leu Tyr Arg Ile His Leu Asp Val Cys					
	290		295		300
Gln Leu Arg Arg Val Ile Ala Ala His Gly Phe Ser Ser Lys Glu					
	305		310		315
Ile Ile Thr Phe Trp Gln Val Met Leu Arg Asn Thr Thr Cys His					
	320		325		330

Tyr

<210> 210
 <211> 745
 <212> DNA
 <213> Homo sapiens

<400> 210
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 gtgtcaacaa tgaacacaat gtggccaatg ttgacaataa caacggatgg 200
 gactcctgga attccatctg ggattatgga aatggctttg ctgcaaccag 250
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 tgccctccat tcaatccctt gatgcactgg tcaaggaaaa gaagcttcag 350
 ggtaagggac caggaggacc acctcccaag ggctgatgt actcagtcaa 400
 cccaaacaaa gtcgatgacc tgagcaagtt cggaaaaaac attgcaaaca 450
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 ctgttttttt actcaggaac gtgctacacg accagtgtac tatggattgt 550
 ggacatttcc ttctgtggag acacggtgga gaactaaaca attttttaaa 600
 gccactatgg atttagtcat ctgaatatgc tgtgcagaaa aaatatgggc 650
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 ttgatttctt taagtttcaa taaaatcatt tagcattgaa aaaaa 745

<210> 211
 <211> 185
 <212> PRT
 <213> Homo sapiens

<400> 211
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20 25 30
Asn Asn Ala Gly Ser Gly Gln Gln Ser Val Ser Val Asn Asn Glu
35 40 45
His Asn Val Ala Asn Val Asp Asn Asn Asn Gly Trp Asp Ser Trp
50 55 60
Asn Ser Ile Trp Asp Tyr Gly Asn Gly Phe Ala Ala Thr Arg Leu
65 70 75
Phe Gln Lys Lys Thr Cys Ile Val His Lys Met Asn Lys Glu Val
80 85 90
Met Pro Ser Ile Gln Ser Leu Asp Ala Leu Val Lys Glu Lys Lys
95 100 105
Leu Gln Gly Lys Gly Pro Gly Gly Pro Pro Pro Lys Gly Leu Met
110 115 120
Tyr Ser Val Asn Pro Asn Lys Val Asp Asp Leu Ser Lys Phe Gly
125 130 135
Lys Asn Ile Ala Asn Met Cys Arg Gly Ile Pro Thr Tyr Met Ala
140 145 150
Glu Glu Met Gln Glu Ala Ser Leu Phe Phe Tyr Ser Gly Thr Cys
155 160 165
Tyr Thr Thr Ser Val Leu Trp Ile Val Asp Ile Ser Phe Cys Gly
170 175 180
Asp Thr Val Glu Asn
185

<210> 212
<211> 1706
<212> DNA
<213> Homo sapiens

<400> 212
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tcctagtatt aaattcttat tgcttactga tttttttgag ttaagagttg 200
ttatatgcta gaatatgagg atgtgaatat aaataagaga agaaaaaaga 250
ataaagtaga ttgagtctcc aattttatgt aagcttcaga agaactgggt 300

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 gaaatctgca tagaaacact taggctttat accagaaaaa agccaaacta 550
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 aaaagt 1706

<210> 213
 <211> 299
 <212> PRT
 <213> Homo sapiens

<400> 213
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 20 25 30
 Gln Ile Pro Leu Pro Thr Arg Pro His Trp Phe Leu Leu Phe Gly
 35 40 45
 Thr Thr Glu Glu Glu Ile Gln Glu Ile Cys Ile Glu Thr Leu Arg
 50 55 60
 Leu Tyr Thr Arg Lys Lys Pro Asn Tyr Glu Leu Leu Glu Lys Glu
 65 70 75
 Val Glu Lys Arg Lys Val Ala Leu Gln Glu Ala Lys Leu Lys Ala
 80 85 90
 Lys Gly Leu Asn Pro Asp Gly Thr Pro Ala Leu Ser Thr Leu Gly
 95 100 105
 Gly Phe Ser Pro Ala Ser Lys Pro Ser Ser Pro Arg Glu Val Lys
 110 115 120
 Ala Glu Glu Lys Ser Pro Ile Ser Ile Asn Val Lys Thr Val Lys
 125 130 135
 Lys Glu Pro Glu Asp Arg Gln Gln Ala Ser Lys Ser Pro Tyr Asn
 140 145 150
 Gly Val Arg Lys Asp Ser Lys Arg Ser Arg Asn Ser Arg Ser Ala
 155 160 165
 Ser Arg Ser Arg Ser Arg Thr Arg Ser Arg Ser Arg Ser His Thr
 170 175 180
 Pro Arg Arg His Tyr Asn Asn Arg Arg Ser Arg Ser Gly Thr Tyr
 185 190 195
 Ser Ser Arg Ser Arg Ser Arg Ser Arg Ser His Ser Glu Ser Pro
 200 205 210
 Arg Arg His His Asn His Gly Ser Pro His Leu Lys Ala Lys His
 215 220 225
 Thr Arg Asp Asp Leu Lys Ser Ser Asn Arg His Gly His Lys Arg
 230 235 240
 Lys Lys Ser Arg Ser Arg Ser Gln Ser Lys Ser Arg Asp His Ser
 245 250 255
 Asp Ala Ala Lys Lys His Arg His Glu Arg Gly His His Arg Asp

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tcggggccctg gcggggaagc cgaggcccag aggcaggaaa gagcgggtggg 250
ccaatggcct tagtgaggag aagccactgt ctgtgccccg agatgccccg 300
ttccagctgg agacctgccc cctcacgacc gtggatgccc tggtcctgcg 350
cttcttcctg gagtaccagt ggtttggtga ctttgctgtg tactcgggcg 400
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<210> 216
<211> 479
<212> PRT
<213> Homo sapiens

<400> 216
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20 25 30
Leu Leu Cys Asn Gly Ser Leu Phe Arg Tyr Lys His Pro Ser Glu
35 40 45
Glu Glu Leu Arg Ala Leu Ala Gly Lys Pro Arg Pro Arg Gly Arg
50 55 60
Lys Glu Arg Trp Ala Asn Gly Leu Ser Glu Glu Lys Pro Leu Ser
65 70 75
Val Pro Arg Asp Ala Pro Phe Gln Leu Glu Thr Cys Pro Leu Thr
80 85 90
Thr Val Asp Ala Leu Val Leu Arg Phe Phe Leu Glu Tyr Gln Trp
95 100 105
Phe Val Asp Phe Ala Val Tyr Ser Gly Gly Val Tyr Leu Phe Thr
110 115 120
Glu Ala Tyr Tyr Tyr Met Leu Gly Pro Ala Lys Glu Thr Asn Ile
125 130 135
Ala Val Phe Trp Cys Leu Leu Thr Val Thr Phe Ser Ile Lys Met
140 145 150
Phe Leu Thr Val Thr Arg Leu Tyr Phe Ser Ala Glu Glu Gly Gly
155 160 165
Glu Arg Ser Val Cys Leu Thr Phe Ala Phe Leu Phe Leu Leu Leu
170 175 180
Ala Met Leu Val Gln Val Val Arg Glu Glu Thr Leu Glu Leu Gly
185 190 195
Leu Glu Pro Gly Leu Ala Ser Met Thr Gln Asn Leu Glu Pro Leu

	200		205		210
Leu Lys Lys Gln Gly Trp Asp Trp Ala	215	Leu Pro Val Ala Lys Leu	220		225
Ala Ile Arg Val Gly Leu Ala Val Val	230	Gly Ser Val Leu Gly Ala	235		240
Phe Leu Thr Phe Pro Gly Leu Arg Leu	245	Ala Gln Thr His Arg Asp	250		255
Ala Leu Thr Met Ser Glu Asp Arg Pro	260	Met Leu Gln Phe Leu Leu	265		270
His Thr Ser Phe Leu Ser Pro Leu Phe	275	Ile Leu Trp Leu Trp Thr	280		285
Lys Pro Ile Ala Arg Asp Phe Leu His	290	Gln Pro Pro Phe Gly Glu	295		300
Thr Arg Phe Ser Leu Leu Ser Asp Ser	305	Ala Phe Asp Ser Gly Arg	310		315
Leu Trp Leu Leu Val Val Leu Cys Leu	320	Leu Arg Leu Ala Val Thr	325		330
Arg Pro His Leu Gln Ala Tyr Leu Cys	335	Leu Ala Lys Ala Arg Val	340		345
Glu Gln Leu Arg Arg Glu Ala Gly Arg	350	Ile Glu Ala Arg Glu Ile	355		360
Gln Gln Arg Val Val Arg Val Tyr Cys	365	Tyr Val Thr Val Val Ser	370		375
Leu Gln Tyr Leu Thr Pro Leu Ile Leu	380	Thr Leu Asn Cys Thr Leu	385		390
Leu Leu Lys Thr Leu Gly Gly Tyr Ser	395	Trp Gly Leu Gly Pro Ala	400		405
Pro Leu Leu Ser Pro Asp Pro Ser Ser	410	Ala Ser Ala Ala Pro Ile	415		420
Gly Ser Gly Glu Asp Glu Val Gln Gln	425	Thr Ala Ala Arg Ile Ala	430		435
Gly Ala Leu Gly Gly Leu Leu Thr Pro	440	Leu Phe Leu Arg Gly Val	445		450
Leu Ala Tyr Leu Ile Trp Trp Thr Ala	455	Ala Cys Gln Leu Leu Ala	460		465
Ser Leu Phe Gly Leu Tyr Phe His Gln	470	His Leu Ala Gly Ser	475		

<210> 217

<211> 574

<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 5, 146
<223> unknown base

<400> 217
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ccagccaagg agactaacat tgctgtgttc tggtagcctgc tcacagtgc 450
cttctccatc aagatgttcc tgacagtgc acggctgtac ttcagcgccg 500
aggagggggg tgagcgtctt gtctgcctca cctttgcctt cctcttcctg 550
ctgctggcca tgctggtgca agcg 574

<210> 218
<211> 2571
<212> DNA
<213> Homo sapiens

<400> 218
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aggcgctcac aagatggctg tccagacggc tgtgcgagcc tcacagccac 400
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aaatattttt cagaagttaa a 2571

<210> 219
<211> 632
<212> PRT
<213> Homo sapiens

<400> 219

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Leu	Cys	Lys	Gly	Ala	Ser	His	Tyr	Gly	Leu	Thr	Lys	Asp	Arg	Lys	35	40	45	
Arg	Arg	Ser	Gln	Asp	Gly	Cys	Pro	Asp	Gly	Cys	Ala	Ser	Leu	Thr	50	55	60	
Ala	Thr	Ala	Pro	Ser	Pro	Glu	Val	Ser	Ala	Ala	Ala	Thr	Ile	Ser	65	70	75	
Leu	Met	Thr	Asp	Glu	Pro	Gly	Leu	Asp	Asn	Pro	Ala	Tyr	Val	Ser	80	85	90	
Ser	Ala	Glu	Asp	Gly	Gln	Pro	Ala	Ile	Ser	Pro	Val	Asp	Ser	Gly	95	100	105	
Arg	Ser	Asn	Arg	Thr	Arg	Ala	Arg	Pro	Phe	Glu	Arg	Ser	Thr	Ile	110	115	120	
Arg	Ser	Arg	Ser	Phe	Lys	Lys	Ile	Asn	Arg	Ala	Leu	Ser	Val	Leu	125	130	135	

SECRET

425									430					435				
Asp	Leu	Pro	Ile	Tyr	Val	Ile	Ser	Val	Glu	Pro	Gly	Gly	Val	Ile				
				440					445				450					
Ser	Arg	Asp	Gly	Arg	Ile	Lys	Thr	Gly	Asp	Ile	Leu	Leu	Asn	Val				
				455					460				465					
Asp	Gly	Val	Glu	Leu	Thr	Glu	Val	Ser	Arg	Ser	Glu	Ala	Val	Ala				
				470					475				480					
Leu	Leu	Lys	Arg	Thr	Ser	Ser	Ser	Ile	Val	Leu	Lys	Ala	Leu	Glu				
				485					490				495					
Val	Lys	Glu	Tyr	Glu	Pro	Gln	Glu	Asp	Cys	Ser	Ser	Pro	Ala	Ala				
				500					505				510					
Leu	Asp	Ser	Asn	His	Asn	Met	Ala	Pro	Pro	Ser	Asp	Trp	Ser	Pro				
				515					520				525					
Ser	Trp	Val	Met	Trp	Leu	Glu	Leu	Pro	Arg	Cys	Leu	Tyr	Asn	Cys				
				530					535				540					
Lys	Asp	Ile	Val	Leu	Arg	Arg	Asn	Thr	Ala	Gly	Ser	Leu	Gly	Phe				
				545					550				555					
Cys	Ile	Val	Gly	Gly	Tyr	Glu	Glu	Tyr	Asn	Gly	Asn	Lys	Pro	Phe				
				560					565				570					
Phe	Ile	Lys	Ser	Ile	Val	Glu	Gly	Thr	Pro	Ala	Tyr	Asn	Asp	Gly				
				575					580				585					
Arg	Ile	Arg	Cys	Gly	Asp	Ile	Leu	Leu	Ala	Val	Asn	Gly	Arg	Ser				
				590					595				600					
Thr	Ser	Gly	Met	Ile	His	Ala	Cys	Leu	Ala	Arg	Leu	Leu	Lys	Glu				
				605					610				615					
Leu	Lys	Gly	Arg	Ile	Thr	Leu	Thr	Ile	Val	Ser	Trp	Pro	Gly	Thr				
				620					625				630					
Phe	Leu																	

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<210> 220
<211> 773
<212> DNA
<213> Homo sapiens
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<211> 773

<212> DNA

<213> Homo sapiens

<400> 220

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aggatagaag ctgcacaggg cagctttact tactccagca ccttcctctc 100

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gtttttaaca tcatcagccc aagcaacaat ggtggcaatg ttcaggagac 200

agtgacaatt gataatgaaa aaaataccgc catcgtaac atccatgcag 250
 gatcatgctc ttctaccaca atttttgact ataaacatgg ctacattgca 300
 tccaggggtgc tctcccgaag agcctgcttt atcctgaaga tggaccatca 350
 gaacatccct cctctgaaca atctccaatg gtacatctat gagaaacagg 400
 ctctggacaa catgttctcc aacaaatata cctgggtcaa gtacaaccct 450
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 tgagaaactc tgcaaacata tccctttgta taagggggaa gtggttgaaa 550
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 ctcttgtttt atcttttcaa agaaatacat ccttggttta cactcaaaag 700
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 aaaatataaa tgctgtattt ata 773

<210> 221
 <211> 184
 <212> PRT
 <213> Homo sapiens

<400> 221
 Met Lys Ile Leu Val Ala Phe Leu Val Val Leu Thr Ile Phe Gly
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 Ile Gln Ser His Gly Tyr Glu Val Phe Asn Ile Ile Ser Pro Ser
 20 25 30
 Asn Asn Gly Gly Asn Val Gln Glu Thr Val Thr Ile Asp Asn Glu
 35 40 45
 Lys Asn Thr Ala Ile Val Asn Ile His Ala Gly Ser Cys Ser Ser
 50 55 60
 Thr Thr Ile Phe Asp Tyr Lys His Gly Tyr Ile Ala Ser Arg Val
 65 70 75
 Leu Ser Arg Arg Ala Cys Phe Ile Leu Lys Met Asp His Gln Asn
 80 85 90
 Ile Pro Pro Leu Asn Asn Leu Gln Trp Tyr Ile Tyr Glu Lys Gln
 95 100 105
 Ala Leu Asp Asn Met Phe Ser Asn Lys Tyr Thr Trp Val Lys Tyr
 110 115 120
 Asn Pro Leu Glu Ser Leu Ile Lys Asp Val Asp Trp Phe Leu Leu
 125 130 135
 Gly Ser Pro Ile Glu Lys Leu Cys Lys His Ile Pro Leu Tyr Lys

	140		145		150
Gly Glu Val Val	Glu Asn Thr His Asn Val Gly Ala Gly Gly Cys				
	155		160		165
Ala Lys Ala Gly	Leu Leu Gly Ile Leu Gly Ile Ser Ile Cys Ala				
	170		175		180
Asp Ile His Val					

<210> 222
 <211> 992
 <212> DNA
 <213> Homo sapiens

<400> 222
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<210> 223

SECRET

216

<210> 224
 <211> 1297
 <212> DNA
 <213> Homo sapiens

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 ctctcttttg tatgacatca ccgtcatccc taagttcaga cctggaccac 150
 ggtggtgtgc ggttcaaggc caggtggatg aaaagacttt tcttcactat 200
 gactgtggca acaagacagt cacacctgtc agtcccctgg ggaagaaact 250
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 gccagaaaga tgaaagaaaa gtgggagaat gacaagggtg tggccatgtc 550
 cttccattac ttctcaatgg gagactgtat aggatggctt gaggacttct 600
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<210> 225
 <211> 246
 <212> PRT
 <213> Homo sapiens

<400> 225
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 20 25 30
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 35 40 45
 Gly Pro Arg Trp Cys Ala Val Gln Gly Gln Val Asp Glu Lys Thr
 50 55 60
 Phe Leu His Tyr Asp Cys Gly Asn Lys Thr Val Thr Pro Val Ser
 65 70 75
 Pro Leu Gly Lys Lys Leu Asn Val Thr Thr Ala Trp Lys Ala Gln
 80 85 90
 Asn Pro Val Leu Arg Glu Val Val Asp Ile Leu Thr Glu Gln Leu
 95 100 105
 Arg Asp Ile Gln Leu Glu Asn Tyr Thr Pro Lys Glu Pro Leu Thr
 110 115 120
 Leu Gln Ala Arg Met Ser Cys Glu Gln Lys Ala Glu Gly His Ser
 125 130 135
 Ser Gly Ser Trp Gln Phe Ser Phe Asp Gly Gln Ile Phe Leu Leu
 140 145 150
 Phe Asp Ser Glu Lys Arg Met Trp Thr Thr Val His Pro Gly Ala
 155 160 165
 Arg Lys Met Lys Glu Lys Trp Glu Asn Asp Lys Val Val Ala Met
 170 175 180
 Ser Phe His Tyr Phe Ser Met Gly Asp Cys Ile Gly Trp Leu Glu
 185 190 195
 Asp Phe Leu Met Gly Met Asp Ser Thr Leu Glu Pro Ser Ala Gly
 200 205 210
 Ala Pro Leu Ala Met Ser Ser Gly Thr Thr Gln Leu Arg Ala Thr
 215 220 225
 Ala Thr Thr Leu Ile Leu Cys Cys Leu Leu Ile Ile Leu Pro Cys
 230 235 240
 Phe Ile Leu Pro Gly Ile
 245

<210> 226

<211> 735
 <212> DNA
 <213> Homo sapiens

<400> 226
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 caagttatat accgtggaat ggagttgac ccaaccataa catcgtggag 150
 ggttttaatt ttggtggtag ccctcaccca attctggtgt ggctttcttt 200
 gcagaggatt ccaccttcaa aatcatgaac tctggctgtt gatcaaaaaga 250
 gaatttggat tctactctaa aagtcaatat aggacttggc aaaagaagct 300
 agcagaagac tcaacctggc ctcccataaa caggacagat tattcagggtg 350
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 ctggggccagg ctgtaatcag aattgtcgtc gtacatgctc aacagcattg 500
 cttttttccc caaaattaac acattgtgga gaagtgatga tactctcccc 550
 ttacctttcc tctctccatt caagcattca aagtatattt tcaatgaatt 600
 aaaccttgca gcaagggacc ttagataggc ttattctgac tgtatgcttt 650
 accaatgaga gaaaaaaatg catttcctgt atcatccttt tcaataaaact 700
 gtattcattt tgaaaaaaaa aaaaaaaaaa aaaaa 735

<210> 227
 <211> 115
 <212> PRT
 <213> Homo sapiens

<400> 227
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 20 25 30
 Phe His Leu Gln Asn His Glu Leu Trp Leu Leu Ile Lys Arg Glu
 35 40 45
 Phe Gly Phe Tyr Ser Lys Ser Gln Tyr Arg Thr Trp Gln Lys Lys
 50 55 60
 Leu Ala Glu Asp Ser Thr Trp Pro Pro Ile Asn Arg Thr Asp Tyr
 65 70 75
 Ser Gly Asp Gly Lys Asn Gly Phe Tyr Ile Asn Gly Gly Tyr Glu
 80 85 90

Ser His Glu Gln Ile Pro Lys Arg Lys Leu Lys Leu Gly Gly Gln
 95 100 105

Pro Thr Glu Gln His Phe Trp Ala Arg Leu
 110 115

<210> 228

<211> 2185

<212> DNA

<213> Homo sapiens

<400> 228

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<210> 229

<211> 653

<212> PRT

<213> Homo sapiens

<400> 229

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Ala	Ile	Leu	Leu	Pro	Phe	Val	Tyr	Leu	Thr	Ala	Gln	Val	Trp	Ile
				20					25					30

Leu	Cys	Ala	Ala	Ile	Ala	Ala	Ala	Ala	Ser	Ala	Gly	Pro	Gln	Asn
				35					40					45

Cys	Pro	Ser	Val	Cys	Ser	Cys	Ser	Asn	Gln	Phe	Ser	Lys	Val	Val
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

				50					55					60
Cys	Thr	Arg	Arg	Gly 65	Leu	Ser	Glu	Val	Pro 70	Gln	Gly	Ile	Pro	Ser 75
Asn	Thr	Arg	Tyr	Leu 80	Asn	Leu	Met	Glu	Asn 85	Asn	Ile	Gln	Met	Ile 90
Gln	Ala	Asp	Thr	Phe 95	Arg	His	Leu	His	His 100	Leu	Glu	Val	Leu	Gln 105
Leu	Gly	Arg	Asn	Ser 110	Ile	Arg	Gln	Ile	Glu 115	Val	Gly	Ala	Phe	Asn 120
Gly	Leu	Ala	Ser	Leu 125	Asn	Thr	Leu	Glu	Leu 130	Phe	Asp	Asn	Trp	Leu 135
Thr	Val	Ile	Pro	Ser 140	Gly	Ala	Phe	Glu	Tyr 145	Leu	Ser	Lys	Leu	Arg 150
Glu	Leu	Trp	Leu	Arg 155	Asn	Asn	Pro	Ile	Glu 160	Ser	Ile	Pro	Ser	Tyr 165
Ala	Phe	Asn	Arg	Val 170	Pro	Ser	Leu	Met	Arg 175	Leu	Asp	Leu	Gly	Glu 180
Leu	Lys	Lys	Leu	Glu 185	Tyr	Ile	Ser	Glu	Gly 190	Ala	Phe	Glu	Gly	Leu 195
Phe	Asn	Leu	Lys	Tyr 200	Leu	Asn	Leu	Gly	Met 205	Cys	Asn	Ile	Lys	Asp 210
Met	Pro	Asn	Leu	Thr 215	Pro	Leu	Val	Gly	Leu 220	Glu	Glu	Leu	Glu	Met 225
Ser	Gly	Asn	His	Phe 230	Pro	Glu	Ile	Arg	Pro 235	Gly	Ser	Phe	His	Gly 240
Leu	Ser	Ser	Leu	Lys 245	Lys	Leu	Trp	Val	Met 250	Asn	Ser	Gln	Val	Ser 255
Leu	Ile	Glu	Arg	Asn 260	Ala	Phe	Asp	Gly	Leu 265	Ala	Ser	Leu	Val	Glu 270
Leu	Asn	Leu	Ala	His 275	Asn	Asn	Leu	Ser	Ser 280	Leu	Pro	His	Asp	Leu 285
Phe	Thr	Pro	Leu	Arg 290	Tyr	Leu	Val	Glu	Leu 295	His	Leu	His	His	Asn 300
Pro	Trp	Asn	Cys	Asp 305	Cys	Asp	Ile	Leu	Trp 310	Leu	Ala	Trp	Trp	Leu 315
Arg	Glu	Tyr	Ile	Pro 320	Thr	Asn	Ser	Thr	Cys 325	Cys	Gly	Arg	Cys	His 330
Ala	Pro	Met	His	Met 335	Arg	Gly	Arg	Tyr	Leu 340	Val	Glu	Val	Asp	Gln 345

SECRET

635

640

645

Asp Lys Val Gln Glu Thr Gln Ile
650

<210> 230

<211> 2846

<212> DNA

<213> Homo sapiens

<400> 230

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<210> 231
 <211> 720
 <212> PRT
 <213> Homo sapiens

<400> 231
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 Glu Ala Cys Pro Gly Ala Glu Trp Asn Ile Met Cys Arg Glu Cys
 35 40 45
 Cys Glu Tyr Asp Gln Ile Glu Cys Val Cys Pro Gly Lys Arg Glu
 50 55 60
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 Cys Asp Ser Cys Leu Ile His Pro Gly Cys Thr Ile Phe Glu Asn
 80 85 90
 Cys Lys Ser Cys Arg Asn Gly Ser Trp Gly Gly Thr Leu Asp Asp
 95 100 105
 Phe Tyr Val Lys Gly Phe Tyr Cys Ala Glu Cys Arg Ala Gly Trp
 110 115 120
 Tyr Gly Gly Asp Cys Met Arg Cys Gly Gln Val Leu Arg Ala Pro
 125 130 135
 Lys Gly Gln Ile Leu Leu Glu Ser Tyr Pro Leu Asn Ala His Cys
 140 145 150
 Glu Trp Thr Ile His Ala Lys Pro Gly Phe Val Ile Gln Leu Arg
 155 160 165
 Phe Val Met Leu Ser Leu Glu Phe Asp Tyr Met Cys Gln Tyr Asp
 170 175 180
 Tyr Val Glu Val Arg Asp Gly Asp Asn Arg Asp Gly Gln Ile Ile
 185 190 195
 Lys Arg Val Cys Gly Asn Glu Arg Pro Ala Pro Ile Gln Ser Ile
 200 205 210
 Gly Ser Ser Leu His Val Leu Phe His Ser Asp Gly Ser Lys Asn
 215 220 225

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Ser	Ser	Pro	Cys	Phe	His	Asp	Gly	Thr	Cys	Val	Leu	Asp	Lys	Ala	
				245					250					255	
Gly	Ser	Tyr	Lys	Cys	Ala	Cys	Leu	Ala	Gly	Tyr	Thr	Gly	Gln	Arg	
				260					265					270	
Cys	Glu	Asn	Leu	Leu	Glu	Glu	Arg	Asn	Cys	Ser	Asp	Pro	Gly	Gly	
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Pro	Val	Asn	Gly	Tyr	Gln	Lys	Ile	Thr	Gly	Gly	Pro	Gly	Leu	Ile	
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Asn	Gly	Arg	His	Ala	Lys	Ile	Gly	Thr	Val	Val	Ser	Phe	Phe	Cys	
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Asn	Asn	Ser	Tyr	Val	Leu	Ser	Gly	Asn	Glu	Lys	Arg	Thr	Cys	Gln	
				320					325					330	
Gln	Asn	Gly	Glu	Trp	Ser	Gly	Lys	Gln	Pro	Ile	Cys	Ile	Lys	Ala	
				335					340					345	
Cys	Arg	Glu	Pro	Lys	Ile	Ser	Asp	Leu	Val	Arg	Arg	Arg	Val	Leu	
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Pro	Met	Gln	Val	Gln	Ser	Arg	Glu	Thr	Pro	Leu	His	Gln	Leu	Tyr	
				365					370					375	
Ser	Ala	Ala	Phe	Ser	Lys	Gln	Lys	Leu	Gln	Ser	Ala	Pro	Thr	Lys	
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Lys	Pro	Ala	Leu	Pro	Phe	Gly	Asp	Leu	Pro	Met	Gly	Tyr	Gln	His	
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Leu	His	Thr	Gln	Leu	Gln	Tyr	Glu	Cys	Ile	Ser	Pro	Phe	Tyr	Arg	
				410					415					420	
Arg	Leu	Gly	Ser	Ser	Arg	Arg	Thr	Cys	Leu	Arg	Thr	Gly	Lys	Trp	
				425					430					435	
Ser	Gly	Arg	Ala	Pro	Ser	Cys	Ile	Pro	Ile	Cys	Gly	Lys	Ile	Glu	
				440					445					450	
Asn	Ile	Thr	Ala	Pro	Lys	Thr	Gln	Gly	Leu	Arg	Trp	Pro	Trp	Gln	
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Ala	Ala	Ile	Tyr	Arg	Arg	Thr	Ser	Gly	Val	His	Asp	Gly	Ser	Leu	
				470					475					480	
His	Lys	Gly	Ala	Trp	Phe	Leu	Val	Cys	Ser	Gly	Ala	Leu	Val	Asn	
				485					490					495	
Glu	Arg	Thr	Val	Val	Val	Ala	Ala	His	Cys	Val	Thr	Asp	Leu	Gly	
				500					505					510	
Lys	Val	Thr	Met	Ile	Lys	Thr	Ala	Asp	Leu	Lys	Val	Val	Leu	Gly	

				515					520					525
Lys	Phe	Tyr	Arg	Asp 530	Asp	Asp	Arg	Asp	Glu 535	Lys	Thr	Ile	Gln	Ser 540
Leu	Gln	Ile	Ser	Ala 545	Ile	Ile	Leu	His	Pro 550	Asn	Tyr	Asp	Pro	Ile 555
Leu	Leu	Asp	Ala	Asp 560	Ile	Ala	Ile	Leu	Lys 565	Leu	Leu	Asp	Lys	Ala 570
Arg	Ile	Ser	Thr	Arg 575	Val	Gln	Pro	Ile	Cys 580	Leu	Ala	Ala	Ser	Arg 585
Asp	Leu	Ser	Thr	Ser 590	Phe	Gln	Glu	Ser	His 595	Ile	Thr	Val	Ala	Gly 600
Trp	Asn	Val	Leu	Ala 605	Asp	Val	Arg	Ser	Pro 610	Gly	Phe	Lys	Asn	Asp 615
Thr	Leu	Arg	Ser	Gly 620	Val	Val	Ser	Val	Val 625	Asp	Ser	Leu	Leu	Cys 630
Glu	Glu	Gln	His	Glu 635	Asp	His	Gly	Ile	Pro 640	Val	Ser	Val	Thr	Asp 645
Asn	Met	Phe	Cys	Ala 650	Ser	Trp	Glu	Pro	Thr 655	Ala	Pro	Ser	Asp	Ile 660
Cys	Thr	Ala	Glu	Thr 665	Gly	Gly	Ile	Ala	Ala 670	Val	Ser	Phe	Pro	Gly 675
Arg	Ala	Ser	Pro	Glu 680	Pro	Arg	Trp	His	Leu 685	Met	Gly	Leu	Val	Ser 690
Trp	Ser	Tyr	Asp	Lys 695	Thr	Cys	Ser	His	Arg 700	Leu	Ser	Thr	Ala	Phe 705
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<212> DNA
<213> Artificial Sequence
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SECRET

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<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

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<210> 235

<211> 1964

<212> DNA

<213> Homo sapiens

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caaattccga ttactgttgc tgttgacttt gtgcctgaca gtggttgggt 200

gggccaccag taactacttc gtgggtgccca ttcaagagat tcctaaagca 250

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aactctgact aatgaagcat ccacgaagaa ggtagaactt gacaactgtc 350

cttctgtgtc tccttacctc agaggccaga gcaagctcat ttccaacca 400

gatctcactt tggaagaggt acaggcagaa aatcccaaag tgtccagagg 450

ccggtatcgc cctcaggaat gtaaagcttt acagagggtc gccatcctcg 500

ttccccaccg gaacagagag aaacacctga tgtacctgct ggaacatctg 550

catcccttcc tgcagaggca gcagctggat tatggcatct acgtcatcca 600

ccaggctgaa ggtaaaaagt ttaatcgagc caaactcttg aatgtgggct 650

atctagaagc cctcaaggaa gaaaattggg actgctttat attccacgat 700

gtggacctgg tacccgagaa tgactttaac ctttacaagt gtgaggagca 750

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acaqtggata ttttgggggt gttactgcc taagcagaga gcagtttttc 850

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 gtgaaaaagc aaaa 1964

<210> 236
 <211> 344
 <212> PRT
 <213> Homo sapiens

<220>
 <221> Signal peptide
 <222> 1-27
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<220>
 <221> N-glycosylation sites
 <222> 4-7, 220-223, 335-338
 <223> N-glycosylation sites

<220>
 <221> Xylose isomerase proteins
 <222> 191-201
 <223> Xylose isomerase proteins

<400> 236

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Leu	Leu	Leu	Leu	Thr	Leu	Cys	Leu	Thr	Val	Val	Gly	Trp	Ala	Thr	20	25	30	
Ser	Asn	Tyr	Phe	Val	Gly	Ala	Ile	Gln	Glu	Ile	Pro	Lys	Ala	Lys	35	40	45	
Glu	Phe	Met	Ala	Asn	Phe	His	Lys	Thr	Leu	Ile	Leu	Gly	Lys	Gly	50	55	60	
Lys	Thr	Leu	Thr	Asn	Glu	Ala	Ser	Thr	Lys	Lys	Val	Glu	Leu	Asp	65	70	75	
Asn	Cys	Pro	Ser	Val	Ser	Pro	Tyr	Leu	Arg	Gly	Gln	Ser	Lys	Leu	80	85	90	
Ile	Phe	Lys	Pro	Asp	Leu	Thr	Leu	Glu	Glu	Val	Gln	Ala	Glu	Asn	95	100	105	
Pro	Lys	Val	Ser	Arg	Gly	Arg	Tyr	Arg	Pro	Gln	Glu	Cys	Lys	Ala	110	115	120	
Leu	Gln	Arg	Val	Ala	Ile	Leu	Val	Pro	His	Arg	Asn	Arg	Glu	Lys	125	130	135	
His	Leu	Met	Tyr	Leu	Leu	Glu	His	Leu	His	Pro	Phe	Leu	Gln	Arg	140	145	150	
Gln	Gln	Leu	Asp	Tyr	Gly	Ile	Tyr	Val	Ile	His	Gln	Ala	Glu	Gly	155	160	165	
Lys	Lys	Phe	Asn	Arg	Ala	Lys	Leu	Leu	Asn	Val	Gly	Tyr	Leu	Glu	170	175	180	
Ala	Leu	Lys	Glu	Glu	Asn	Trp	Asp	Cys	Phe	Ile	Phe	His	Asp	Val	185	190	195	
Asp	Leu	Val	Pro	Glu	Asn	Asp	Phe	Asn	Leu	Tyr	Lys	Cys	Glu	Glu	200	205	210	
His	Pro	Lys	His	Leu	Val	Val	Gly	Arg	Asn	Ser	Thr	Gly	Tyr	Arg	215	220	225	
Leu	Arg	Tyr	Ser	Gly	Tyr	Phe	Gly	Gly	Val	Thr	Ala	Leu	Ser	Arg	230	235	240	
Glu	Gln	Phe	Phe	Lys	Val	Asn	Gly	Phe	Ser	Asn	Asn	Tyr	Trp	Gly	245	250	255	
Trp	Gly	Gly	Glu	Asp	Asp	Asp	Leu	Arg	Leu	Arg	Val	Glu	Leu	Gln				

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<210> 241
 <211> 423
 <212> PRT
 <213> Homo sapiens

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 Tyr Glu Leu Asn Leu Thr Thr Asp Ser Pro Ala Thr Thr Gly Ala
 35 40 45

Val	Val	Thr	Ile	Ser	Ala	Ser	Leu	Val	Ala	Lys	Asp	Asn	Gly	Ser	
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Leu	Ala	Leu	Pro	Ala	Asp	Ala	His	Leu	Tyr	Arg	Phe	His	Trp	Ile	
				65					70					75	
His	Thr	Pro	Leu	Val	Leu	Thr	Gly	Lys	Met	Glu	Lys	Gly	Leu	Ser	
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Ser	Thr	Ile	Arg	Val	Val	Gly	His	Val	Pro	Gly	Glu	Phe	Pro	Val	
				95					100					105	
Ser	Val	Trp	Val	Thr	Ala	Ala	Asp	Cys	Trp	Met	Cys	Gln	Pro	Val	
				110					115					120	
Ala	Arg	Gly	Phe	Val	Val	Leu	Pro	Ile	Thr	Glu	Phe	Leu	Val	Gly	
				125					130					135	
Asp	Leu	Val	Val	Thr	Gln	Asn	Thr	Ser	Leu	Pro	Trp	Pro	Ser	Ser	
				140					145					150	
Tyr	Leu	Thr	Lys	Thr	Val	Leu	Lys	Val	Ser	Phe	Leu	Leu	His	Asp	
				155					160					165	
Pro	Ser	Asn	Phe	Leu	Lys	Thr	Ala	Leu	Phe	Leu	Tyr	Ser	Trp	Asp	
				170					175					180	
Phe	Gly	Asp	Gly	Thr	Gln	Met	Val	Thr	Glu	Asp	Ser	Val	Val	Tyr	
				185					190					195	
Tyr	Asn	Tyr	Ser	Ile	Ile	Gly	Thr	Phe	Thr	Val	Lys	Leu	Lys	Val	
				200					205					210	
Val	Ala	Glu	Trp	Glu	Glu	Val	Glu	Pro	Asp	Ala	Thr	Arg	Ala	Val	
				215					220					225	
Lys	Gln	Lys	Thr	Gly	Asp	Phe	Ser	Ala	Ser	Leu	Lys	Leu	Gln	Glu	
				230					235					240	
Thr	Leu	Arg	Gly	Ile	Gln	Val	Leu	Gly	Pro	Thr	Leu	Ile	Gln	Thr	
				245					250					255	
Phe	Gln	Lys	Met	Thr	Val	Thr	Leu	Asn	Phe	Leu	Gly	Ser	Pro	Pro	
				260					265					270	
Leu	Thr	Val	Cys	Trp	Arg	Leu	Lys	Pro	Glu	Cys	Leu	Pro	Leu	Glu	
				275					280					285	
Glu	Gly	Glu	Cys	His	Pro	Val	Ser	Val	Ala	Ser	Thr	Ala	Tyr	Asn	
				290					295					300	
Leu	Thr	His	Thr	Phe	Arg	Asp	Pro	Gly	Asp	Tyr	Cys	Phe	Ser	Ile	
				305					310					315	
Arg	Ala	Glu	Asn	Ile	Ile	Ser	Lys	Thr	His	Gln	Tyr	His	Lys	Ile	
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Gln	Val	Trp	Pro	Ser	Arg	Ile	Gln	Pro	Ala	Val	Phe	Ala	Phe	Pro	

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Cys Ala Thr Leu Ile Thr Val Met Leu Ala Phe Ile Met Tyr Met					
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Thr Leu Arg Asn Ala Thr Gln Gln Lys Asp Met Val Glu Asn Pro					
	365		370		375
Glu Pro Pro Ser Gly Val Arg Cys Cys Cys Gln Met Cys Cys Gly					
	380		385		390
Pro Phe Leu Leu Glu Thr Pro Ser Glu Tyr Leu Glu Ile Val Arg					
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 <212> DNA
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 <223> Synthetic oligonucleotide probe

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<210> 243
 <211> 25
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 243
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<210> 244
 <211> 46
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 244
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<210> 245
 <211> 485
 <212> DNA
 <213> Homo sapiens

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<210> 246
 <211> 84
 <212> PRT
 <213> Homo sapiens

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 Thr Gly Gln Leu Ala Glu Leu Gln Pro Gln Asp Arg Ala Gly Ala
 35 40 45
 Arg Ala Ser Trp Met Pro Met Phe Gln Arg Arg Arg Arg Arg Asp
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 Ser Lys Cys Gly Met Cys Cys Lys Thr
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<210> 247
 <211> 2359
 <212> DNA
 <213> Homo sapiens

<400> 247
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 agcctgattg tcaaccttct gggcatctcc ctgactgtcc tcttcaccct 150
 ccttctcggt ttcacatag tgccagccat ttttgagtc tcctttggta 200

tccgcaaact ctacatgaaa agtctgttaa aaatctttgc gtgggctacc 250
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<211> 456

<213> Homo sapiens

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Met Glu Arg Gly Ala Lys Glu Lys Asn His Gln Leu Tyr Lys Pro
65 70 75

Glu Ile Lys Glu Ile Arg Arg Ser Gly Ser Ser Lys Ala Leu Asp
95 100 105

239

				110					115					120
Lys	Gly	Met	Glu	Thr 125	Ile	Met	Asp	Asp	Glu 130	Val	Thr	Lys	Arg	Phe 135
Ser	Ala	Glu	Glu	Leu 140	Glu	Ser	Trp	Asn	Leu 145	Leu	Ser	Arg	Thr	Asn 150
Tyr	Asn	Phe	Gln	Tyr 155	Ile	Ser	Leu	Arg	Leu 160	Thr	Val	Leu	Trp	Gly 165
Leu	Gly	Val	Leu	Ile 170	Arg	Tyr	Cys	Phe	Leu 175	Leu	Pro	Leu	Arg	Ile 180
Ala	Leu	Ala	Phe	Thr 185	Gly	Ile	Ser	Leu	Leu 190	Val	Val	Gly	Thr	Thr 195
Val	Val	Gly	Tyr	Leu 200	Pro	Asn	Gly	Arg	Phe 205	Lys	Glu	Phe	Met	Ser 210
Lys	His	Val	His	Leu 215	Met	Cys	Tyr	Arg	Ile 220	Cys	Val	Arg	Ala	Leu 225
Thr	Ala	Ile	Ile	Thr 230	Tyr	His	Asp	Arg	Glu 235	Asn	Arg	Pro	Arg	Asn 240
Gly	Gly	Ile	Cys	Val 245	Ala	Asn	His	Thr	Ser 250	Pro	Ile	Asp	Val	Ile 255
Ile	Leu	Ala	Ser	Asp 260	Gly	Tyr	Tyr	Ala	Met 265	Val	Gly	Gln	Val	His 270
Gly	Gly	Leu	Met	Gly 275	Val	Ile	Gln	Arg	Ala 280	Met	Val	Lys	Ala	Cys 285
Pro	His	Val	Trp	Phe 290	Glu	Arg	Ser	Glu	Val 295	Lys	Asp	Arg	His	Leu 300
Val	Ala	Lys	Arg	Leu 305	Thr	Glu	His	Val	Gln 310	Asp	Lys	Ser	Lys	Leu 315
Pro	Ile	Leu	Ile	Phe 320	Pro	Glu	Gly	Thr	Cys 325	Ile	Asn	Asn	Thr	Ser 330
Val	Met	Met	Phe	Lys 335	Lys	Gly	Ser	Phe	Glu 340	Ile	Gly	Ala	Thr	Val 345
Tyr	Pro	Val	Ala	Ile 350	Lys	Tyr	Asp	Pro	Gln 355	Phe	Gly	Asp	Ala	Phe 360
Trp	Asn	Ser	Ser	Lys 365	Tyr	Gly	Met	Val	Thr 370	Tyr	Leu	Leu	Arg	Met 375
Met	Thr	Ser	Trp	Ala 380	Ile	Val	Cys	Ser	Val 385	Trp	Tyr	Leu	Pro	Pro 390
Met	Thr	Arg	Glu	Ala 395	Asp	Glu	Asp	Ala	Val 400	Gln	Phe	Ala	Asn	Arg 405

Val Lys Ser Ala Ile Ala Arg Gln Gly Gly Leu Val Asp Leu Leu
410 415 420

Trp Asp Gly Gly Leu Lys Arg Glu Lys Val Lys Asp Thr Phe Lys
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Glu Glu Gln Gln Lys Leu Tyr Ser Lys Met Ile Val Gly Asn His
440 445 450

Lys Asp Arg Ser Arg Ser
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<211> 1103
<212> DNA
<213> Homo sapiens

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gccctcggca gcctcggcct ccacacctgg caggcccagg ctgttccac 150
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<211> 240

<212> PRT

<213> Homo sapiens

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Glu Met Glu Glu Lys Ala Ala Pro Leu Leu Lys Glu Glu Met Ala
50 55 60

His His Ala Leu Leu Arg Glu Ser Trp Glu Ala Ala Gln Glu Thr
65 70 75

Trp Glu Asp Lys Arg Arg Gly Leu Thr Leu Pro Pro Gly Phe Lys
80 85 90

Ala Gln Asn Gly Ile Ala Ile Met Val Tyr Thr Asn Ser Ser Asn
95 100 105

Thr Leu Tyr Trp Glu Leu Asn Gln Ala Val Arg Thr Gly Gly Gly
110 115 120

Ser Arg Glu Leu Tyr Met Arg His Phe Pro Phe Lys Ala Leu His
125 130 135

Phe Tyr Leu Ile Arg Ala Leu Gln Leu Leu Arg Gly Ser Gly Gly
140 145 150

Cys Ser Arg Gly Pro Gly Glu Val Val Phe Arg Gly Val Gly Ser
155 160 165

Leu Arg Phe Glu Pro Lys Arg Leu Gly Asp Ser Val Arg Leu Gly
170 175 180

Gln Phe Ala Ser Ser Ser Leu Asp Lys Ala Val Ala His Arg Phe
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Gly Glu Lys Arg Arg Gly Cys Val Ser Ala Pro Gly Val Gln Leu
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Gly Ser Gln Ser Glu Gly Ala Ser Ser Leu Pro Pro Trp Lys Thr
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242

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 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

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<210> 252
 <211> 1076
 <212> DNA
 <213> Homo sapiens

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 tcaacacaac ccctcttgct accatacagc cagaaggggg cactatcata 250
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 tggggatata cagctcatca ctccagcagc cctccacca ggagtacgtg 400
 ctgcatgtct acgagcacct gtcaaagcct aaagtcacca tgggtctgca 450
 gagcaataag aatggcacct gtgtgaccaa tctgacatgc tgcattggaac 500
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 aatgagtcct ataattgggtc catcctcccc atctcctgga gatggggaga 600
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245

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0947056-0000

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 ttcaacttgc agtgggtttt caatgactct tgtgcacctc ctactgggtt 500
 caataaaccc accagtaacg acaccatggc gagtggctgg agagcatcta 550
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 cagtcagata gtcacgggtt tccttggctg tctgtgtgga gtctctaagc 700
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<211> 229

<212> PRT

<213> Homo sapiens

<400> 258

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Ile	Val	Ser	Leu	Val	Glu	Glu	Asp	Gln	Phe	Ser	Gln	Asn	Pro	Ile	35	40	45	
Ser	Cys	Phe	Glu	Trp	Trp	Phe	Pro	Gly	Ile	Ile	Gly	Ala	Gly	Leu	50	55	60	
Met	Ala	Ile	Pro	Ala	Thr	Thr	Met	Ser	Leu	Thr	Ala	Arg	Lys	Arg	65	70	75	
Ala	Cys	Cys	Asn	Asn	Arg	Thr	Gly	Met	Phe	Leu	Ser	Ser	Phe	Phe	80	85	90	
Ser	Val	Ile	Thr	Val	Ile	Gly	Ala	Leu	Tyr	Cys	Met	Leu	Ile	Ser	95	100	105	
Ile	Gln	Ala	Leu	Leu	Lys	Gly	Pro	Leu	Met	Cys	Asn	Ser	Pro	Ser	110	115	120	
Asn	Ser	Asn	Ala	Asn	Cys	Glu	Phe	Ser	Leu	Lys	Asn	Ile	Ser	Asp	125	130	135	
Ile	His	Pro	Glu	Ser	Phe	Asn	Leu	Gln	Trp	Phe	Phe	Asn	Asp	Ser	140	145	150	
Cys	Ala	Pro	Pro	Thr	Gly	Phe	Asn	Lys	Pro	Thr	Ser	Asn	Asp	Thr	155	160	165	
Met	Ala	Ser	Gly	Trp	Arg	Ala	Ser	Ser	Phe	His	Phe	Asp	Ser	Glu	170	175	180	

Glu Asn Lys His Arg Leu Ile His Phe Ser Val Phe Leu Gly Leu
185 190 195

Leu Leu Val Gly Ile Leu Glu Val Leu Phe Gly Leu Ser Gln Ile
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Val Ile Gly Phe Leu Gly Cys Leu Cys Gly Val Ser Lys Arg Arg
215 220 225

Ser Gln Ile Val

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<211> 434
<212> DNA
<213> Homo sapiens

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gctaccaggc ccatgctctt gtctgcccag ctggttgcttc tgagatcaca 150
gtcttcttat tcttaagtga cgctgcggta aacctccaag ttgccaaact 200
taatccacct ccagaagctc ttgcagccaa gttggaagtg aagcactgca 250
ccgatcagat atctttttaag aaacgactct cattgaaaaa gtcttggtgg 300
aaatagttaa aaaatgtggt gtgtgacatg taaaaatgct caacctggtt 350
tccaaagtct ttcaacgaca cctgatctt cactaaaaat tgtaaagggt 400
tcaacacggt gctttaataa atcacttgcc ctgc 434

<210> 260
<211> 83
<212> PRT
<213> Homo sapiens

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Cys Tyr Gln Ala His Ala Leu Val Cys Pro Ala Val Ala Ser Glu
20 25 30
Ile Thr Val Phe Leu Phe Leu Ser Asp Ala Ala Val Asn Leu Gln
35 40 45
Val Ala Lys Leu Asn Pro Pro Pro Glu Ala Leu Ala Ala Lys Leu
50 55 60
Glu Val Lys His Cys Thr Asp Gln Ile Ser Phe Lys Lys Arg Leu
65 70 75
Ser Leu Lys Lys Ser Trp Trp Lys

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 <211> 636
 <212> DNA
 <213> Homo sapiens

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 tgccactact tgctgagcac aggactggcc tccagggatg gcctgaagcc 500
 taacactggc ccccagcacc tcctcccctg ggaggcctta tcctcaagga 550
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<210> 262
 <211> 89
 <212> PRT
 <213> Homo sapiens

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 20 25 30
 Tyr Tyr Asp Trp Lys Asn Leu Gln Leu Ser Gly Leu Ile Cys Gly
 35 40 45
 Gly Leu Leu Ala Ile Ala Gly Ile Ala Ala Val Leu Ser Gly Lys
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 65 70 75
 Lys Ala Ile Pro Leu Ile Thr Pro Gly Ser Ala Thr Thr Cys
 80 85

<210> 263
 <211> 1676
 <212> DNA
 <213> Homo sapiens

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<210> 264

<211> 524

<212> PRT

<213> Homo sapiens

<400> 264

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				20					25					30	
Leu	Ala	Arg	Ile	Leu	Ala	Trp	Thr	Tyr	Ala	Phe	Tyr	Asn	Asn	Cys	
				35					40					45	
Arg	Arg	Leu	Gln	Cys	Phe	Pro	Gln	Pro	Pro	Lys	Arg	Asn	Trp	Phe	
				50					55					60	
Trp	Gly	His	Leu	Gly	Leu	Ile	Thr	Pro	Thr	Glu	Glu	Gly	Leu	Lys	
				65					70					75	
Asp	Ser	Thr	Gln	Met	Ser	Ala	Thr	Tyr	Ser	Gln	Gly	Phe	Thr	Val	
				80					85					90	
Trp	Leu	Gly	Pro	Ile	Ile	Pro	Phe	Ile	Val	Leu	Cys	His	Pro	Asp	
				95					100					105	
Thr	Ile	Arg	Ser	Ile	Thr	Asn	Ala	Ser	Ala	Ala	Ile	Ala	Pro	Lys	
				110					115					120	
Asp	Asn	Leu	Phe	Ile	Arg	Phe	Leu	Lys	Pro	Trp	Leu	Gly	Glu	Gly	
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Ile	Leu	Leu	Ser	Gly	Gly	Asp	Lys	Trp	Ser	Arg	His	Arg	Arg	Met	
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Leu	Thr	Pro	Ala	Phe	His	Phe	Asn	Ile	Leu	Lys	Ser	Tyr	Ile	Thr	
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Ile	Phe	Asn	Lys	Ser	Ala	Asn	Ile	Met	Leu	Asp	Lys	Trp	Gln	His	
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Leu	Ala	Ser	Glu	Gly	Ser	Ser	Arg	Leu	Asp	Met	Phe	Glu	His	Ile	
				185					190					195	
Ser	Leu	Met	Thr	Leu	Asp	Ser	Leu	Gln	Lys	Cys	Ile	Phe	Ser	Phe	
				200					205					210	
Asp	Ser	His	Cys	Gln	Glu	Arg	Pro	Ser	Glu	Tyr	Ile	Ala	Thr	Ile	
				215					220					225	
Leu	Glu	Leu	Ser	Ala	Leu	Val	Glu	Lys	Arg	Ser	Gln	His	Ile	Leu	
				230					235					240	
Gln	His	Met	Asp	Phe	Leu	Tyr	Tyr	Leu	Ser	His	Asp	Gly	Arg	Arg	
				245					250					255	
Phe	His	Arg	Ala	Cys	Arg	Leu	Val	His	Asp	Phe	Thr	Asp	Ala	Val	
				260					265					270	
Ile	Arg	Glu	Arg	Arg	Arg	Thr	Leu	Pro	Thr	Gln	Gly	Ile	Asp	Asp	
				275					280					285	
Phe	Phe	Lys	Asp	Lys	Ala	Lys	Ser	Lys	Thr	Leu	Asp	Phe	Ile	Asp	
				290					295					300	
Val	Leu	Leu	Leu	Ser	Lys	Asp	Glu	Asp	Gly	Lys	Ala	Leu	Ser	Asp	
				305					310					315	
Glu	Asp	Ile	Arg	Ala	Glu	Ala	Asp	Thr	Phe	Met	Phe	Gly	Gly	His	
				320					325					330	
Asp	Thr	Thr	Ala	Ser	Gly	Leu	Ser	Trp	Val	Leu	Tyr	Asn	Leu	Ala	
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Arg	His	Pro	Glu	Tyr	Gln	Glu	Arg	Cys	Arg	Gln	Glu	Val	Gln	Glu	
				350					355					360	
Leu	Leu	Lys	Asp	Arg	Asp	Pro	Lys	Glu	Ile	Glu	Trp	Asp	Asp	Leu	
				365					370					375	
Ala	Gln	Leu	Pro	Phe	Leu	Thr	Met	Cys	Val	Lys	Glu	Ser	Leu	Arg	
				380					385					390	
Leu	His	Pro	Pro	Ala	Pro	Phe	Ile	Ser	Arg	Cys	Cys	Thr	Gln	Asp	
				395					400					405	
Ile	Val	Leu	Pro	Asp	Gly	Arg	Val	Ile	Pro	Lys	Gly	Ile	Thr	Cys	
				410					415					420	
Leu	Ile	Asp	Ile	Ile	Gly	Val	His	His	Asn	Pro	Thr	Val	Trp	Pro	
				425					430					435	
Asp	Pro	Glu	Val	Tyr	Asp	Pro	Phe	Arg	Phe	Asp	Pro	Glu	Asn	Ser	
				440					445					450	
Lys	Gly	Arg	Ser	Pro	Leu	Ala	Phe	Ile	Pro	Phe	Ser	Ala	Gly	Pro	
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<210> 266
<211> 124
<212> PRT
<213> Homo sapiens
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254

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Asn	Ile	Phe	Asn	Pro	Arg	Gly	Asn	Leu	Arg	Lys	Phe	Gln	Asp	Phe
				80					85					90
Ser	Gly	Gln	Asp	Pro	Asn	Ile	Leu	Leu	Ser	His	Leu	Leu	Ala	Arg
				95					100					105
Ile	Trp	Lys	Pro	Tyr	Lys	Lys	Arg	Glu	Thr	Pro	Asp	Cys	Phe	Trp
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Lys	Tyr	Cys	Val											

<210> 267
 <211> 654
 <212> DNA
 <213> Homo sapiens

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 gaagccacca gccaagctgc agccccgagc tctagcaggc tggctccgcc 350
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<210> 268
 <211> 117
 <212> PRT
 <213> Homo sapiens

<400> 268
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 35 40 45
 Ala Lys Leu Gln Pro Arg Ala Leu Ala Gly Trp Leu Arg Pro Glu
 50 55 60
 Asp Gly Gly Gln Ala Glu Gly Ala Glu Asp Glu Leu Glu Val Arg
 65 70 75
 Phe Asn Ala Pro Phe Asp Val Gly Ile Lys Leu Ser Gly Val Gln
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 Tyr Gln Gln His Ser Gln Ala Leu Gly Lys Phe Leu Gln Asp Ile
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 Leu Trp Glu Glu Ala Lys Glu Ala Pro Ala Asp Lys
 110 115

<210> 269
 <211> 1332
 <212> DNA
 <213> Homo sapiens

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<210> 270
 <211> 142
 <212> PRT
 <213> Homo sapiens

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 Asp Phe Leu Gly Leu Val His Leu Gly Gln Leu Leu Ile Phe His
 35 40 45
 Ile Tyr Leu Ser Met Ser Pro Thr Leu Ser Pro Arg Ser Pro Gln
 50 55 60
 Gly Trp Val Val Arg Ala Ala His Leu Thr Pro Leu Leu Glu Tyr
 65 70 75
 Val Pro Asn Pro Glu Pro Pro Thr Pro Gly Ala Arg Val Phe Val
 80 85 90
 Pro Arg Val Arg Met Cys Ser Gly Ser Ala Ser Pro Arg Ser Glu
 95 100 105
 Ile Met Asp Lys Lys Gly Lys Ser Gln Glu Glu Ile Lys Ser Met
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 Ala Gly Val Val Pro Gly Ala
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<210> 271
<211> 1484
<212> DNA
<213> Homo sapiens

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SECRET

<211> 285

<212> PRT

<213> Homo sapiens

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				20					25					30
Thr	Ser	Leu	Leu	Ser	Asn	Tyr	Trp	Phe	Val	Gly	Thr	Gln	Lys	Val
				35					40					45
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Met	Pro	Val	Ser	Leu	Asp	Gly	Asp	Thr	Asn	Thr	Ser	Thr	Gln	Glu
				65					70					75
Val	Val	Gln	Tyr	Asn	Trp	Glu	Thr	Gly	Asp	Asp	Arg	Phe	Ser	Phe
				80					85					90
Arg	Ser	Phe	Arg	Ser	Gly	Met	Trp	Leu	Ser	Cys	Glu	Glu	Thr	Val
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Glu	Glu	Pro	Gly	Glu	Arg	Cys	Arg	Ser	Phe	Ile	Glu	Leu	Thr	Pro
				110					115					120
Pro	Ala	Lys	Arg	Gly	Glu	Lys	Gly	Leu	Leu	Glu	Phe	Ala	Thr	Leu
				125					130					135
Gln	Gly	Pro	Cys	His	Pro	Thr	Leu	Arg	Phe	Gly	Gly	Lys	Arg	Leu
				140					145					150
Met	Glu	Lys	Ala	Ser	Leu	Pro	Ser	Pro	Pro	Leu	Gly	Leu	Cys	Gly
				155					160					165
Lys	Asn	Pro	Met	Val	Ile	Pro	Gly	Asn	Ala	Asp	His	Leu	His	Arg
				170					175					180
Thr	Ser	Ile	His	Gln	Leu	Pro	Pro	Ala	Thr	Asn	Arg	Leu	Ala	Thr
				185					190					195
His	Trp	Glu	Pro	Cys	Leu	Trp	Ala	Gln	Thr	Glu	Arg	Leu	Cys	Cys
				200					205					210
Cys	Phe	Leu	Cys	Pro	Val	Arg	Ser	Pro	Gly	Asp	Gly	Gly	Pro	His
				215					220					225

Asp	Val	Phe	Thr	Ser	Leu	Pro	Ser	Asp	Cys	Gln	Leu	Gly	Ser	Arg
				230					235					240
Arg	Leu	Glu	Thr	Thr	Cys	Leu	Glu	Leu	Trp	Leu	Gly	Leu	Leu	His
				245					250					255
Gly	Leu	Ala	Leu	Leu	His	Leu	Leu	His	Gly	Val	Gly	Cys	His	His
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<210> 273

<211> 1158

<212> DNA

<213> Homo sapiens

<400> 273

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<400> 274

<210> 275

<400> 275

261

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SECRET

<211> 131

<213> Homo sapiens

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Ala Met Ser Asn Ala Cys Lys Glu Leu Ala Ile Phe Leu Thr Thr
65 70 75

Ala His Leu Ile Glu Trp Gly Ala Cys Ala Leu Val Leu Thr Gly
95 100 105

263

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 atttgggtct gccattgaca gaatgtcaaa taaaaggaa ttagctagaa 4050
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gtca 4104

<210> 278

<211> 522

<212> PRT

<213> Homo sapiens

<400> 278

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Arg Pro Ser Gly Val Val Leu Cys Leu Leu Gly Ala Cys Phe Gln
20 25 30

Met Leu Pro Ala Ala Pro Ser Gly Cys Pro Gln Leu Cys Arg Cys
35 40 45

Glu Gly Arg Leu Leu Tyr Cys Glu Ala Leu Asn Leu Thr Glu Ala
50 55 60

Pro His Asn Leu Ser Gly Leu Leu Gly Leu Ser Leu Arg Tyr Asn
65 70 75

Ser Leu Ser Glu Leu Arg Ala Gly Gln Phe Thr Gly Leu Met Gln
80 85 90

Leu Thr Trp Leu Tyr Leu Asp His Asn His Ile Cys Ser Val Gln
95 100 105

Gly Asp Ala Phe Gln Lys Leu Arg Arg Val Lys Glu Leu Thr Leu
110 115 120

Ser Ser Asn Gln Ile Thr Gln Leu Pro Asn Thr Thr Phe Arg Pro
125 130 135

Met Pro Asn Leu Arg Ser Val Asp Leu Ser Tyr Asn Lys Leu Gln
140 145 150

Ala Leu Ala Pro Asp Leu Phe His Gly Leu Arg Lys Leu Thr Thr
155 160 165

Leu His Met Arg Ala Asn Ala Ile Gln Phe Val Pro Val Arg Ile
170 175 180

Phe Gln Asp Cys Arg Ser Leu Lys Phe Leu Asp Ile Gly Tyr Asn
185 190 195

Gln Leu Lys Ser Leu Ala Arg Asn Ser Phe Ala Gly Leu Phe Lys
200 205 210

Leu Thr Glu Leu His Leu Glu His Asn Asp Leu Val Lys Val Asn
215 220 225

Phe Ala His Phe Pro Arg Leu Ile Ser Leu His Ser Leu Cys Leu
230 235 240

Arg Arg Asn Lys Val Ala Ile Val Val Ser Ser Leu Asp Trp Val
245 250 255

Trp Asn Leu Glu Lys Met Asp Leu Ser Gly Asn Glu Ile Glu Tyr	260	265	270
Met Glu Pro His Val Phe Glu Thr Val Pro His Leu Gln Ser Leu	275	280	285
Gln Leu Asp Ser Asn Arg Leu Thr Tyr Ile Glu Pro Arg Ile Leu	290	295	300
Asn Ser Trp Lys Ser Leu Thr Ser Ile Thr Leu Ala Gly Asn Leu	305	310	315
Trp Asp Cys Gly Arg Asn Val Cys Ala Leu Ala Ser Trp Leu Ser	320	325	330
Asn Phe Gln Gly Arg Tyr Asp Gly Asn Leu Gln Cys Ala Ser Pro	335	340	345
Glu Tyr Ala Gln Gly Glu Asp Val Leu Asp Ala Val Tyr Ala Phe	350	355	360
His Leu Cys Glu Asp Gly Ala Glu Pro Thr Ser Gly His Leu Leu	365	370	375
Ser Ala Val Thr Asn Arg Ser Asp Leu Gly Pro Pro Ala Ser Ser	380	385	390
Ala Thr Thr Leu Ala Asp Gly Gly Glu Gly Gln His Asp Gly Thr	395	400	405
Phe Glu Pro Ala Thr Val Ala Leu Pro Gly Gly Glu His Ala Glu	410	415	420
Asn Ala Val Gln Ile His Lys Val Val Thr Gly Thr Met Ala Leu	425	430	435
Ile Phe Ser Phe Leu Ile Val Val Leu Val Leu Tyr Val Ser Trp	440	445	450
Lys Cys Phe Pro Ala Ser Leu Arg Gln Leu Arg Gln Cys Phe Val	455	460	465
Thr Gln Arg Arg Lys Gln Lys Gln Lys Gln Thr Met His Gln Met	470	475	480
Ala Ala Met Ser Ala Gln Glu Tyr Tyr Val Asp Tyr Lys Pro Asn	485	490	495
His Ile Glu Gly Ala Leu Val Ile Ile Asn Glu Tyr Gly Ser Cys	500	505	510
Thr Cys His Gln Gln Pro Ala Arg Glu Cys Glu Val	515	520	

<210> 279

<211> 46

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 279

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<210> 280

<211> 709

<212> DNA

<213> Homo sapiens

<400> 280

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<210> 281

<211> 229

<212> PRT

<213> Homo sapiens

<400> 281

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20 25 30
Asp Val Ala Ala Asn Trp Ser Gln Asn Arg Thr Pro Cys Ala Gly
35 40 45
Gly Ala Val Glu Phe Pro Ala Asp Lys Met Val Ser Val Leu Val

					50						55						60
Gln	Glu	Gly	His	Ala	Val	Ser	Asp	Met	Leu	Leu	Pro	Leu	Asp	Gly			
				65					70					75			
Glu	Leu	Val	Leu	Ala	Ser	Gly	Ala	Gly	Phe	Gly	Val	Ser	Asp	Val			
				80					85					90			
Gly	Ser	His	Leu	Asp	Cys	Gly	Ala	Gly	Glu	Pro	Ala	Val	Phe	Arg			
				95					100					105			
Asp	Ser	Asp	Arg	Phe	Ser	Trp	His	Asp	Pro	His	Leu	Trp	Arg	Ser			
				110					115					120			
Gly	Asp	Glu	Ala	Pro	Gly	Leu	Phe	Phe	Val	Asp	Ala	Glu	Arg	Val			
				125					130					135			
Pro	Cys	Arg	His	Asp	Asp	Val	Phe	Phe	Pro	Pro	Ser	Ala	Ser	Phe			
				140					145					150			
Arg	Val	Gly	Leu	Gly	Pro	Gly	Ala	Ser	Pro	Val	Arg	Val	Arg	Ser			
				155					160					165			
Ile	Ser	Ala	Leu	Gly	Arg	Thr	Phe	Thr	Arg	Asp	Glu	Asp	Leu	Ala			
				170					175					180			
Val	Phe	Leu	Ala	Ser	Arg	Ala	Gly	Arg	Leu	Arg	Phe	His	Gly	Pro			
				185					190					195			
Gly	Ala	Leu	Ser	Val	Gly	Pro	Glu	Asp	Cys	Ala	Asp	Pro	Ser	Gly			
				200					205					210			
Cys	Val	Cys	Gly	Asn	Ala	Glu	Ala	Gln	Pro	Trp	Ile	Cys	Ala	Ala			
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Leu	Leu	Gln	Pro														

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<210> 282
<211> 644
<212> DNA
<213> Homo sapiens
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cttgcaactta	tcttctgcat	tttgcaagtct	ttggcattga	cgtggtacag	200
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tgtgtcttgc	ataattcatg	gccagtttta	tgaagctttg	gaaggcacta	300
tggaacagaag	ctggtggaca	gttttgtaac	tatcttcgaa	acctctgtct	350

tacagacatg tgccttttat cttgcagcaa tgtgttgctt gtgattcgaa 400
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cagtagcaca ggatgagaag tgggttctgt atcttgtgga gtggaatctt 500
cctcatgtac ctgtttcctc tctggatgtt gtcccactga attcccatga 550
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<210> 283

<211> 77

<212> PRT

<213> Homo sapiens

<400> 283

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Leu	Ile	Ala	Thr	Ile	Met	Val	Leu	Leu	Cys	Phe	Ala	Leu	Thr	Leu
				20					25					30
Cys	Ser	Ala	Phe	Trp	Trp	His	Asn	Lys	Gly	Leu	Ala	Leu	Ile	Phe
				35					40					45
Cys	Ile	Leu	Gln	Ser	Leu	Ala	Leu	Thr	Trp	Tyr	Ser	Leu	Ser	Phe
				50					55					60
Ile	Pro	Phe	Ala	Arg	Asp	Ala	Val	Lys	Lys	Cys	Phe	Ala	Val	Cys
				65					70					75
Leu	Ala													

<210> 284

<211> 2623

<212> DNA

<213> Homo sapiens

<400> 284

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accttttctc tccaactaga ccagcaaaag gttctactag tttcttttga 350
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<210> 285

<211> 477

<212> PRT

<213> Homo sapiens

<400> 285

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Ser	Leu	Ser	Thr	Thr	Phe	Ser	Leu	Gln	Leu	Asp	Gln	Gln	Lys	Val
				20					25					30
Leu	Leu	Val	Ser	Phe	Asp	Gly	Phe	Arg	Trp	Asp	Tyr	Leu	Tyr	Lys
				35					40					45
Val	Pro	Thr	Pro	His	Phe	His	Tyr	Ile	Met	Lys	Tyr	Gly	Val	His
				50					55					60
Val	Lys	Gln	Val	Thr	Asn	Val	Phe	Ile	Thr	Lys	Thr	Tyr	Pro	Asn
				65					70					75
His	Tyr	Thr	Leu	Val	Thr	Gly	Leu	Phe	Ala	Glu	Asn	His	Gly	Ile
				80					85					90
Val	Ala	Asn	Asp	Met	Phe	Asp	Pro	Ile	Arg	Asn	Lys	Ser	Phe	Ser
				95					100					105

Leu	Asp	His	Met	Asn	Ile	Tyr	Asp	Ser	Lys	Phe	Trp	Glu	Glu	Ala	
				110					115					120	
Thr	Pro	Ile	Trp	Ile	Thr	Asn	Gln	Arg	Ala	Gly	His	Thr	Ser	Gly	
				125					130					135	
Ala	Ala	Met	Trp	Pro	Gly	Thr	Asp	Val	Lys	Ile	His	Lys	Arg	Phe	
				140					145					150	
Pro	Thr	His	Tyr	Met	Pro	Tyr	Asn	Glu	Ser	Val	Ser	Phe	Glu	Asp	
				155					160					165	
Arg	Val	Ala	Lys	Ile	Val	Glu	Trp	Phe	Thr	Ser	Lys	Glu	Pro	Ile	
				170					175					180	
Asn	Leu	Gly	Leu	Leu	Tyr	Trp	Glu	Asp	Pro	Asp	Asp	Met	Gly	His	
				185					190					195	
His	Leu	Gly	Pro	Asp	Ser	Pro	Leu	Met	Gly	Pro	Val	Ile	Ser	Asp	
				200					205					210	
Ile	Asp	Lys	Lys	Leu	Gly	Tyr	Leu	Ile	Gln	Met	Leu	Lys	Lys	Ala	
				215					220					225	
Lys	Leu	Trp	Asn	Thr	Leu	Asn	Leu	Ile	Ile	Thr	Ser	Asp	His	Gly	
				230					235					240	
Met	Thr	Gln	Cys	Ser	Glu	Glu	Arg	Leu	Ile	Glu	Leu	Asp	Gln	Tyr	
				245					250					255	
Leu	Asp	Lys	Asp	His	Tyr	Thr	Leu	Ile	Asp	Gln	Ser	Pro	Val	Ala	
				260					265					270	
Ala	Ile	Leu	Pro	Lys	Glu	Gly	Lys	Phe	Asp	Glu	Val	Tyr	Glu	Ala	
				275					280					285	
Leu	Thr	His	Ala	His	Pro	Asn	Leu	Thr	Val	Tyr	Lys	Lys	Glu	Asp	
				290					295					300	
Val	Pro	Glu	Arg	Trp	His	Tyr	Lys	Tyr	Asn	Ser	Arg	Ile	Gln	Pro	
				305					310					315	
Ile	Ile	Ala	Val	Ala	Asp	Glu	Gly	Trp	His	Ile	Leu	Gln	Asn	Lys	
				320					325					330	
Ser	Asp	Asp	Phe	Leu	Leu	Gly	Asn	His	Gly	Tyr	Asp	Asn	Ala	Leu	
				335					340					345	
Ala	Asp	Met	His	Pro	Ile	Phe	Leu	Ala	His	Gly	Pro	Ala	Phe	Arg	
				350					355					360	
Lys	Asn	Phe	Ser	Lys	Glu	Ala	Met	Asn	Ser	Thr	Asp	Leu	Tyr	Pro	
				365					370					375	
Leu	Leu	Cys	His	Leu	Leu	Asn	Ile	Thr	Ala	Met	Pro	His	Asn	Gly	
				380					385					390	
Ser	Phe	Trp	Asn	Val	Gln	Asp	Leu	Leu	Asn	Ser	Ala	Met	Pro	Arg	

SECRET

<211> 255

<212> PRT

<213> Homo sapiens

Met Ala '

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Glu Asn Glu Glu Glu Glu Glu Glu Glu Glu Gln Pro Pro Pro Thr

Pro Val Ser Gly Glu Glu Gly Arg Ala Ala Ala Pro Asp Val Ala

Pro Ala Pro Gly Pro Ala Pro Arg Ala Pro Leu Asp Phe Arg Gly

Met Leu Arg Lys Leu Phe Ser Ser His Arg Phe Gln Val Ile Ile

Ile Cys Leu Val Val Leu Asp Ala Leu Leu Val Leu Ala Glu Leu

Ile Leu Asp Leu Lys Ile Ile Gln Pro Asp Lys Asn Asn Tyr Ala

Ala Met Val Phe His Tyr Met Ser Ile Thr Ile Leu Val Phe Phe

Met Met Glu Ile Ile Phe Lys Leu Phe Val Phe Arg Leu Ser Ser

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<211> 3334

<212> DNA

<213> Homo sapiens

<400> 288

277

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<210> 289

<211> 469

<212> PRT

<213> Homo sapiens

<400> 289

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Thr	Glu	Phe	Gln	Tyr	Phe	Glu	Ser	Lys	Gly	Leu	Pro	Ala	Glu	Leu
			20						25					30
Lys	Ser	Ile	Phe	Lys	Leu	Ser	Val	Phe	Ile	Pro	Ser	Gln	Glu	Phe
			35						40					45
Ser	Thr	Tyr	Arg	Gln	Trp	Lys	Gln	Lys	Ile	Val	Gln	Ala	Gly	Asp
			50						55					60

Lys	Asp	Leu	Asp	Gly	Gln	Leu	Asp	Phe	Glu	Glu	Phe	Val	His	Tyr	
				65					70					75	
Leu	Gln	Asp	His	Glu	Lys	Lys	Leu	Arg	Leu	Val	Phe	Lys	Ile	Leu	
				80					85					90	
Asp	Lys	Lys	Asn	Asp	Gly	Arg	Ile	Asp	Ala	Gln	Glu	Ile	Met	Gln	
				95					100					105	
Ser	Leu	Arg	Asp	Leu	Gly	Val	Lys	Ile	Ser	Glu	Gln	Gln	Ala	Glu	
				110					115					120	
Lys	Ile	Leu	Lys	Ser	Met	Asp	Lys	Asn	Gly	Thr	Met	Thr	Ile	Asp	
				125					130					135	
Trp	Asn	Glu	Trp	Arg	Asp	Tyr	His	Leu	Leu	His	Pro	Val	Glu	Asn	
				140					145					150	
Ile	Pro	Glu	Ile	Ile	Leu	Tyr	Trp	Lys	His	Ser	Thr	Ile	Phe	Asp	
				155					160					165	
Val	Gly	Glu	Asn	Leu	Thr	Val	Pro	Asp	Glu	Phe	Thr	Val	Glu	Glu	
				170					175					180	
Arg	Gln	Thr	Gly	Met	Trp	Trp	Arg	His	Leu	Val	Ala	Gly	Gly	Gly	
				185					190					195	
Ala	Gly	Ala	Val	Ser	Arg	Thr	Cys	Thr	Ala	Pro	Leu	Asp	Arg	Leu	
				200					205					210	
Lys	Val	Leu	Met	Gln	Val	His	Ala	Ser	Arg	Ser	Asn	Asn	Met	Gly	
				215					220					225	
Ile	Val	Gly	Gly	Phe	Thr	Gln	Met	Ile	Arg	Glu	Gly	Gly	Ala	Arg	
				230					235					240	
Ser	Leu	Trp	Arg	Gly	Asn	Gly	Ile	Asn	Val	Leu	Lys	Ile	Ala	Pro	
				245					250					255	
Glu	Ser	Ala	Ile	Lys	Phe	Met	Ala	Tyr	Glu	Gln	Ile	Lys	Arg	Leu	
				260					265					270	
Val	Gly	Ser	Asp	Gln	Glu	Thr	Leu	Arg	Ile	His	Glu	Arg	Leu	Val	
				275					280					285	
Ala	Gly	Ser	Leu	Ala	Gly	Ala	Ile	Ala	Gln	Ser	Ser	Ile	Tyr	Pro	
				290					295					300	
Met	Glu	Val	Leu	Lys	Thr	Arg	Met	Ala	Leu	Arg	Lys	Thr	Gly	Gln	
				305					310					315	
Tyr	Ser	Gly	Met	Leu	Asp	Cys	Ala	Arg	Arg	Ile	Leu	Ala	Arg	Glu	
				320					325					330	
Gly	Val	Ala	Ala	Phe	Tyr	Lys	Gly	Tyr	Val	Pro	Asn	Met	Leu	Gly	
				335					340					345	
Ile	Ile	Pro	Tyr	Ala	Gly	Ile	Asp	Leu	Ala	Val	Tyr	Glu	Thr	Leu	

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attgccaaag	caacagggga	tatcaaagt	acagaatcgg	agatcaaaag	800
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<210> 291

<212> PRT

<213> Homo sapiens

<400> 291

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Gly Asn Ile Gly Glu Asp Gly Ile Leu Ser Cys Thr Phe Glu Pro

	50		55		60
Asp Ile Lys Leu Ser Asp Ile Val Ile Gln Trp Leu Lys Glu Gly	65		70		75
Val Leu Gly Leu Val His Glu Phe Lys Glu Gly Lys Asp Glu Leu	80		85		90
Ser Glu Gln Asp Glu Met Phe Arg Gly Arg Thr Ala Val Phe Ala	95		100		105
Asp Gln Val Ile Val Gly Asn Ala Ser Leu Arg Leu Lys Asn Val	110		115		120
Gln Leu Thr Asp Ala Gly Thr Tyr Lys Cys Tyr Ile Ile Thr Ser	125		130		135
Lys Gly Lys Gly Asn Ala Asn Leu Glu Tyr Lys Thr Gly Ala Phe	140		145		150
Ser Met Pro Glu Val Asn Val Asp Tyr Asn Ala Ser Ser Glu Thr	155		160		165
Leu Arg Cys Glu Ala Pro Arg Trp Phe Pro Gln Pro Thr Val Val	170		175		180
Trp Ala Ser Gln Val Asp Gln Gly Ala Asn Phe Ser Glu Val Ser	185		190		195
Asn Thr Ser Phe Glu Leu Asn Ser Glu Asn Val Thr Met Lys Val	200		205		210
Val Ser Val Leu Tyr Asn Val Thr Ile Asn Asn Thr Tyr Ser Cys	215		220		225
Met Ile Glu Asn Asp Ile Ala Lys Ala Thr Gly Asp Ile Lys Val	230		235		240
Thr Glu Ser Glu Ile Lys Arg Arg Ser His Leu Gln Leu Leu Asn	245		250		255
Ser Lys Ala Ser Leu Cys Val Ser Ser Phe Phe Ala Ile Ser Trp	260		265		270
Ala Leu Leu Pro Leu Ser Pro Tyr Leu Met Leu Lys	275		280		

<210> 292

<211> 1484

<212> DNA

<213> Homo sapiens

<400> 292

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tgaagcgggc ctccgccggc ctgcagcggg ttcattgagcc gacctgggccc 150

<400> 293

Met	Ala	Ala	Ser	Leu	Gly	Gln	Val	Leu	Ala	Leu	Val	Leu	Val	Ala	
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Ala	Leu	Trp	Gly	Gly	Thr	Gln	Pro	Leu	Leu	Lys	Arg	Ala	Ser	Ala	
				20					25					30	
Gly	Leu	Gln	Arg	Val	His	Glu	Pro	Thr	Trp	Ala	Gln	Gln	Leu	Leu	
				35					40					45	
Gln	Glu	Met	Lys	Thr	Leu	Phe	Leu	Asn	Thr	Glu	Tyr	Leu	Met	Pro	
				50					55					60	
Phe	Leu	Leu	Asn	Gln	Cys	Gly	Ser	Leu	Leu	Tyr	Tyr	Leu	Thr	Leu	
				65					70					75	
Ala	Ser	Thr	Asp	Leu	Thr	Leu	Ala	Val	Pro	Ile	Cys	Asn	Ser	Leu	
				80					85					90	
Ala	Ile	Ile	Phe	Thr	Leu	Ile	Val	Gly	Lys	Ala	Leu	Gly	Glu	Asp	
				95					100					105	
Ile	Gly	Gly	Lys	Arg	Lys	Leu	Asp	Tyr	Cys	Glu	Cys	Gly	Thr	Gln	
				110					115					120	
Leu	Cys	Gly	Ser	Arg	His	Thr	Cys	Val	Ser	Ser	Phe	Pro	Glu	Pro	
				125					130					135	
Ile	Ser	Pro	Glu	Trp	Val	Arg	Thr	Arg	Pro	Phe	Pro	Ile	Leu	Pro	
				140					145					150	
Phe	Pro	Leu	Gln	Leu	Phe	Cys	Phe	Leu	Val	Ala	Ile	Arg	Val	Pro	
				155					160					165	
Phe	Pro	Trp	Thr	Val	Trp	Arg	Lys	Thr	Glu	Ala	Gly	Val	Trp	Asp	
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<210> 294

<211> 1164

<212> DNA

<213> Homo sapiens

<400> 294

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cggcctaaga tgccacttct tctcatgtcc caggcttgag gccctgtggt 200
ccccatcctt gggagaagtc agctccagca ccatgaaggg catcctcggt 250
gctggtatca ctgcagtgtc tggtgcagct gtagaatctc tgagctgcgt 300
gcagtgtaat tcatgggaaa aatcctgtgt caacagcatt gcctctgaat 350
gtccctcaca tgccaacacc agctgtatca gctcctcagc cagctcctct 400

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aagaacactt tcatttttga agccagtgtc gccaaaggaaa ggaatgcagc 550
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aaaaaaaaaa aaaa 1164

<210> 295

<211> 237

<212> PRT

<213> Homo sapiens

<400> 295

Met	Lys	Gly	Ile	Leu	Val	Ala	Gly	Ile	Thr	Ala	Val	Leu	Val	Ala
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Ala	Val	Glu	Ser	Leu	Ser	Cys	Val	Gln	Cys	Asn	Ser	Trp	Glu	Lys
				20					25					30
Ser	Cys	Val	Asn	Ser	Ile	Ala	Ser	Glu	Cys	Pro	Ser	His	Ala	Asn
				35					40					45
Thr	Ser	Cys	Ile	Ser	Ser	Ser	Ala	Ser	Ser	Ser	Leu	Glu	Thr	Pro
				50					55					60
Val	Arg	Leu	Tyr	Gln	Asn	Met	Phe	Cys	Ser	Ala	Glu	Asn	Cys	Ser
				65					70					75
Glu	Glu	Thr	His	Ile	Thr	Ala	Phe	Thr	Val	His	Val	Ser	Ala	Glu
				80					85					90
Glu	His	Phe	His	Phe	Val	Ser	Gln	Cys	Cys	Gln	Gly	Lys	Glu	Cys
				95					100					105

Ser	Asn	Thr	Ser	Asp	Ala	Leu	Asp	Pro	Pro	Leu	Lys	Asn	Val	Ser
				110					115					120
Ser	Asn	Ala	Glu	Cys	Pro	Ala	Cys	Tyr	Glu	Ser	Asn	Gly	Thr	Ser
				125					130					135
Cys	Arg	Gly	Lys	Pro	Trp	Lys	Cys	Tyr	Glu	Glu	Glu	Gln	Cys	Val
				140					145					150
Phe	Leu	Val	Ala	Glu	Leu	Lys	Asn	Asp	Ile	Glu	Ser	Lys	Ser	Leu
				155					160					165
Val	Leu	Lys	Gly	Cys	Ser	Asn	Val	Ser	Asn	Ala	Thr	Cys	Gln	Phe
				170					175					180
Leu	Ser	Gly	Glu	Asn	Lys	Thr	Leu	Gly	Gly	Val	Ile	Phe	Arg	Lys
				185					190					195
Phe	Glu	Cys	Ala	Asn	Val	Asn	Ser	Leu	Thr	Pro	Thr	Ser	Ala	Pro
				200					205					210
Thr	Thr	Ser	His	Asn	Val	Gly	Ser	Lys	Ala	Ser	Leu	Tyr	Leu	Leu
				215					220					225
Ala	Leu	Ala	Ser	Leu	Leu	Leu	Arg	Gly	Leu	Leu	Pro			
				230					235					

<210> 296
 <211> 1245
 <212> DNA
 <213> Homo sapiens

<400> 296
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 aatctgggtc cccgggcggc gggggccaa ggctgaccc agactccgac 200
 cgaaatgcag cgggtcagtt tacgctttgg gggcccatg accgcagct 250
 accggagcac cgcccgact ggtcttcccc ggaagacaag gataatccta 300
 gaggacgaga atgatgcat ggccgacgcc gaccgcctgg ctggaccagc 350
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 gccggaaagg atagcaccag cagagagctt cccagtgcga ctccaatac 500
 agcggggagt tccagcacga ggtttatagc caatagtcag gagcctgaaa 550
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<210> 297

<211> 341

<212> PRT

<213> Homo sapiens

<400> 297

Met	Val	Pro	Ala	Ala	Gly	Ala	Leu	Leu	Trp	Val	Leu	Leu	Leu	Asn	1	5	10	15
Leu	Gly	Pro	Arg	Ala	Ala	Gly	Ala	Gln	Gly	Leu	Thr	Gln	Thr	Pro	20	25	30	
Thr	Glu	Met	Gln	Arg	Val	Ser	Leu	Arg	Phe	Gly	Gly	Pro	Met	Thr	35	40	45	
Arg	Ser	Tyr	Arg	Ser	Thr	Ala	Arg	Thr	Gly	Leu	Pro	Arg	Lys	Thr	50	55	60	
Arg	Ile	Ile	Leu	Glu	Asp	Glu	Asn	Asp	Ala	Met	Ala	Asp	Ala	Asp	65	70	75	
Arg	Leu	Ala	Gly	Pro	Ala	Ala	Ala	Glu	Leu	Leu	Ala	Ala	Thr	Val	80	85	90	
Ser	Thr	Gly	Phe	Ser	Arg	Ser	Ser	Ala	Ile	Asn	Glu	Glu	Asp	Gly	95	100	105	
Ser	Ser	Glu	Glu	Gly	Val	Val	Ile	Asn	Ala	Gly	Lys	Asp	Ser	Thr	110	115	120	
Ser	Arg	Glu	Leu	Pro	Ser	Ala	Thr	Pro	Asn	Thr	Ala	Gly	Ser	Ser	125	130	135	
Ser	Thr	Arg	Phe	Ile	Ala	Asn	Ser	Gln	Glu	Pro	Glu	Ile	Arg	Leu				

	140		145		150
Thr Ser Ser Leu	Pro Arg Ser Pro Gly	Arg Ser Thr Glu Asp	Leu		
	155		160		165
Pro Gly Ser Gln	Ala Thr Leu Ser Gln	Trp Ser Thr Pro Gly	Ser		
	170		175		180
Thr Pro Ser Arg	Trp Pro Ser Pro Ser	Pro Thr Ala Met Pro	Ser		
	185		190		195
Pro Glu Asp Leu	Arg Leu Val Leu Met	Pro Trp Gly Pro Trp	His		
	200		205		210
Cys His Cys Lys	Ser Gly Thr Met Ser	Arg Ser Arg Ser Gly	Lys		
	215		220		225
Leu His Gly Leu	Ser Gly Arg Leu Arg	Val Gly Ala Leu Ser	Gln		
	230		235		240
Leu Arg Thr Glu	His Lys Pro Cys Thr	Tyr Gln Gln Cys Pro	Cys		
	245		250		255
Asn Arg Leu Arg	Glu Glu Cys Pro Leu	Asp Thr Ser Leu Cys	Thr		
	260		265		270
Asp Thr Asn Cys	Ala Ser Gln Ser Thr	Thr Ser Thr Arg Thr	Thr		
	275		280		285
Thr Thr Pro Phe	Pro Thr Ile His Leu	Arg Ser Ser Pro Ser	Leu		
	290		295		300
Pro Pro Ala Ser	Pro Cys Pro Ala Leu	Ala Phe Trp Lys Arg	Val		
	305		310		315
Arg Ile Gly Leu	Glu Asp Ile Trp Asn	Ser Leu Ser Ser Val	Phe		
	320		325		330
Thr Glu Met Gln	Pro Ile Asp Arg Asn	Gln Arg			
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<210> 298

<211> 2692

<212> DNA

<213> Homo sapiens

<400> 298

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<210> 299

<211> 320

<212> PRT

<213> Homo sapiens

<400> 299

Met	Ala	Gly	Leu	Ala	Ala	Arg	Leu	Val	Leu	Leu	Ala	Gly	Ala	Ala
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				20					25					30
Asp	Cys	Val	Leu	Gln	Cys	Glu	Glu	Gln	Asn	Cys	Ser	Gly	Gly	Ala
				35					40					45
Leu	Asn	His	Phe	Arg	Ser	Arg	Gln	Pro	Ile	Tyr	Met	Ser	Leu	Ala
				50					55					60
Gly	Trp	Thr	Cys	Arg	Asp	Asp	Cys	Lys	Tyr	Glu	Cys	Met	Trp	Val
				65					70					75

Thr	Val	Gly	Leu	Tyr	Leu	Gln	Glu	Gly	His	Lys	Val	Pro	Gln	Phe	80	85	90
His	Gly	Lys	Trp	Pro	Phe	Ser	Arg	Phe	Leu	Phe	Phe	Gln	Glu	Pro	95	100	105
Ala	Ser	Ala	Val	Ala	Ser	Phe	Leu	Asn	Gly	Leu	Ala	Ser	Leu	Val	110	115	120
Met	Leu	Cys	Arg	Tyr	Arg	Thr	Phe	Val	Pro	Ala	Ser	Ser	Pro	Met	125	130	135
Tyr	His	Thr	Cys	Val	Ala	Phe	Ala	Trp	Val	Ser	Leu	Asn	Ala	Trp	140	145	150
Phe	Trp	Ser	Thr	Val	Phe	His	Thr	Arg	Asp	Thr	Asp	Leu	Thr	Glu	155	160	165
Lys	Met	Asp	Tyr	Phe	Cys	Ala	Ser	Thr	Val	Ile	Leu	His	Ser	Ile	170	175	180
Tyr	Leu	Cys	Cys	Val	Arg	Thr	Val	Gly	Leu	Gln	His	Pro	Ala	Val	185	190	195
Val	Ser	Ala	Phe	Arg	Ala	Leu	Leu	Leu	Leu	Met	Leu	Thr	Val	His	200	205	210
Val	Ser	Tyr	Leu	Ser	Leu	Ile	Arg	Phe	Asp	Tyr	Gly	Tyr	Asn	Leu	215	220	225
Val	Ala	Asn	Val	Ala	Ile	Gly	Leu	Val	Asn	Val	Val	Trp	Trp	Leu	230	235	240
Ala	Trp	Cys	Leu	Trp	Asn	Gln	Arg	Arg	Leu	Pro	His	Val	Arg	Lys	245	250	255
Cys	Val	Val	Val	Val	Leu	Leu	Leu	Gln	Gly	Leu	Ser	Leu	Leu	Glu	260	265	270
Leu	Leu	Asp	Phe	Pro	Pro	Leu	Phe	Trp	Val	Leu	Asp	Ala	His	Ala	275	280	285
Ile	Trp	His	Ile	Ser	Thr	Ile	Pro	Val	His	Val	Leu	Phe	Phe	Ser	290	295	300
Phe	Leu	Glu	Asp	Asp	Ser	Leu	Tyr	Leu	Leu	Lys	Glu	Ser	Glu	Asp	305	310	315
Lys	Phe	Lys	Leu	Asp											320		

<210> 300

<211> 1674

<212> DNA

<213> Homo sapiens

<400> 300

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cctcagtcac cagaacctga aggagtttgc cctgaccaac ccagagaaga 200
gcagcaccaa agaaacggag agaaaagaaa ccaaagccga ggaggagctg 250
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<210> 301
 <211> 461
 <212> PRT
 <213> Homo sapiens

<400> 301
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 20 25 30
 Ser His Gln Asn Leu Lys Glu Phe Ala Leu Thr Asn Pro Glu Lys
 35 40 45
 Ser Ser Thr Lys Glu Thr Glu Arg Lys Glu Thr Lys Ala Glu Glu
 50 55 60
 Glu Leu Asp Ala Glu Val Leu Glu Val Phe His Pro Thr His Glu
 65 70 75
 Trp Gln Ala Leu Gln Pro Gly Gln Ala Val Pro Ala Gly Ser His
 80 85 90
 Val Arg Leu Asn Leu Gln Thr Gly Glu Arg Glu Ala Lys Leu Gln
 95 100 105
 Tyr Glu Asp Lys Phe Arg Asn Asn Leu Lys Gly Lys Arg Leu Asp
 110 115 120
 Ile Asn Thr Asn Thr Tyr Thr Ser Gln Asp Leu Lys Ser Ala Leu
 125 130 135
 Ala Lys Phe Lys Glu Gly Ala Glu Met Glu Ser Ser Lys Glu Asp
 140 145 150
 Lys Ala Arg Gln Ala Glu Val Lys Arg Leu Phe Arg Pro Ile Glu
 155 160 165
 Glu Leu Lys Lys Asp Phe Asp Glu Leu Asn Val Val Ile Glu Thr
 170 175 180
 Asp Met Gln Ile Met Val Arg Leu Ile Asn Lys Phe Asn Ser Ser
 185 190 195
 Ser Ser Ser Leu Glu Glu Lys Ile Ala Ala Leu Phe Asp Leu Glu
 200 205 210
 Tyr Tyr Val His Gln Met Asp Asn Ala Gln Asp Leu Leu Ser Phe
 215 220 225

Gly Gly Leu Gln Val Val Ile Asn Gly Leu Asn Ser Thr Glu Pro	230	235	240
Leu Val Lys Glu Tyr Ala Ala Phe Val Leu Gly Ala Ala Phe Ser	245	250	255
Ser Asn Pro Lys Val Gln Val Glu Ala Ile Glu Gly Gly Ala Leu	260	265	270
Gln Lys Leu Leu Val Ile Leu Ala Thr Glu Gln Pro Leu Thr Ala	275	280	285
Lys Lys Lys Val Leu Phe Ala Leu Cys Ser Leu Leu Arg His Phe	290	295	300
Pro Tyr Ala Gln Arg Gln Phe Leu Lys Leu Gly Gly Leu Gln Val	305	310	315
Leu Arg Thr Leu Val Gln Glu Lys Gly Thr Glu Val Leu Ala Val	320	325	330
Arg Val Val Thr Leu Leu Tyr Asp Leu Val Thr Glu Lys Met Phe	335	340	345
Ala Glu Glu Glu Ala Glu Leu Thr Gln Glu Met Ser Pro Glu Lys	350	355	360
Leu Gln Gln Tyr Arg Gln Val His Leu Leu Pro Gly Leu Trp Glu	365	370	375
Gln Gly Trp Cys Glu Ile Thr Ala His Leu Leu Ala Leu Pro Glu	380	385	390
His Asp Ala Arg Glu Lys Val Leu Gln Thr Leu Gly Val Leu Leu	395	400	405
Thr Thr Cys Arg Asp Arg Tyr Arg Gln Asp Pro Gln Leu Gly Arg	410	415	420
Thr Leu Ala Ser Leu Gln Ala Glu Tyr Gln Val Leu Ala Ser Leu	425	430	435
Glu Leu Gln Asp Gly Glu Asp Glu Gly Tyr Phe Gln Glu Leu Leu	440	445	450
Gly Ser Val Asn Ser Leu Leu Lys Glu Leu Arg	455	460	

<210> 302

<211> 2136

<212> DNA

<213> Homo sapiens

<400> 302

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tcccatttgc ctgtcctggt caggccccca ccccccttcc cacctgacca 200
gccatggggg ctgcggtggt tttcggctgc actttcgtcg cgttcggccc 250
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gatggcctat gtttctggc tctccttcgg tatcatcagt ggtgtcttct 600
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cattatcctg ctccatacct tttggggagt tgtgttcttt gatgcctgtg 750
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cgtcgggtca cccactacc tccagggttt tgctttgtcc ttttgtgacc 1100
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 ttaaccacca gcatccctcc tctccccaag gtgaagtgga ggggtgctgtg 1850
 gtgagctggc cactccagag ctgcagtgcc actggaggag tcagactacc 1900
 atgacatcgt aggggaaggag gggagatttt tttgtagttt ttaattgggg 1950
 tgtgggaggg gcggggagggt tttctataaa ctgtatcatt ttctgctgag 2000
 ggtggagtgt cccatccttt taatcaagggt gattgtgatt ttgactaata 2050
 aaaaagaatt tgtaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2100
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa 2136

<210> 303

<211> 247

<212> PRT

<213> Homo sapiens

<400> 303

Met	Gly	Ala	Ala	Val	Phe	Phe	Gly	Cys	Thr	Phe	Val	Ala	Phe	Gly
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Pro	Ala	Phe	Ala	Leu	Phe	Leu	Ile	Thr	Val	Ala	Gly	Asp	Pro	Leu
				20					25					30
Arg	Val	Ile	Ile	Leu	Val	Ala	Gly	Ala	Phe	Phe	Trp	Leu	Val	Ser
				35					40					45
Leu	Leu	Leu	Ala	Ser	Val	Val	Trp	Phe	Ile	Leu	Val	His	Val	Thr
				50					55					60
Asp	Arg	Ser	Asp	Ala	Arg	Leu	Gln	Tyr	Gly	Leu	Leu	Ile	Phe	Gly
				65					70					75
Ala	Ala	Val	Ser	Val	Leu	Leu	Gln	Glu	Val	Phe	Arg	Phe	Ala	Tyr
				80					85					90
Tyr	Lys	Leu	Leu	Lys	Lys	Ala	Asp	Glu	Gly	Leu	Ala	Ser	Leu	Ser
				95					100					105
Glu	Asp	Gly	Arg	Ser	Pro	Ile	Ser	Ile	Arg	Gln	Met	Ala	Tyr	Val
				110					115					120
Ser	Gly	Leu	Ser	Phe	Gly	Ile	Ile	Ser	Gly	Val	Phe	Ser	Val	Ile
				125					130					135
Asn	Ile	Leu	Ala	Asp	Ala	Leu	Gly	Pro	Gly	Val	Val	Gly	Ile	His

	140		145		150
Gly Asp Ser Pro Tyr Tyr Phe Leu Thr Ser Ala Phe Leu Thr Ala					
	155		160		165
Ala Ile Ile Leu Leu His Thr Phe Trp Gly Val Val Phe Phe Asp					
	170		175		180
Ala Cys Glu Arg Arg Arg Tyr Trp Ala Leu Gly Leu Val Val Gly					
	185		190		195
Ser His Leu Leu Thr Ser Gly Leu Thr Phe Leu Asn Pro Trp Tyr					
	200		205		210
Glu Ala Ser Leu Leu Pro Ile Tyr Ala Val Thr Val Ser Met Gly					
	215		220		225
Leu Trp Ala Phe Ile Thr Ala Gly Gly Ser Leu Arg Ser Ile Gln					
	230		235		240
Arg Ser Leu Leu Cys Lys Asp					
	245				

<210> 304
 <211> 240
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 108, 123, 126, 154, 198, 206, 217
 <223> unknown base

<400> 304
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 aagatcaacc catttccatt ccgccagatg gcctatgttt ctggtctctc 100
 ccttcggnat catcagtggg gtnttntctg ttatcaatat tttggctgat 150
 gcanttgggc caggtgtggg tgggatccat ggagactcac cctattantt 200
 cctganttca gccttnttga cagcagccat tatcctgctc 240

<210> 305
 <211> 378
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 58, 94, 132, 186, 191, 220, 240, 248, 280, 311, 332
 <223> unknown base

<400> 305
 gaccgaccgt tcagatgccc ggttccagta cggcttcctg atttttgggtg 50
 ctgctgtntc tgtccttcta caggaggtgt tccgctttgc ctantacaag 100

ctgcttaaga aggcagatga ggggttagca tngctgagtg aggacggaag 150
atcacccatt tccatccgcc agatggccta tgttnttggg ntttccttcg 200
gtatcatcag tgggtgttttn tctgttatca atattttggn tgatgcantt 250
gggccagggtg tgggtgggat ccatggagan tcaccctatt aattcctgaa 300
ttcagccttt ntgacagcag ccattatcct gntccatacc ttttggggag 350
ttgtgttttt tgatgcctgt gagaggag 378

<210> 306

<211> 655

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 1, 22, 129, 133, 184

<223> unknown base

<400> 306

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gcggtgccac ccacgcgga ctccccagnt gnggcgcct tccatttgc 150
ctgtcctggt caggccccca ccccccttc cacntgacca gccatggggg 200
ctgcggtggt tttcggtgc actttcgtcg cgttcggccc ggccttcgcg 250
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cgctgagtga ggacggaaga tcacccatct ccatccgcca gatggcctat 550
gtttctggtc tctccttcgg tatcatcagt ggtgtcttct ctgttatcaa 600
tattttggct gatgcacttg ggccagggtg ggttgggatc catggagact 650
cacc 655

<210> 307

<211> 650

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

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Asp Asp Ser Ser Ser Arg Ile Ile Asn Gly Ser Asp Cys Asp Met	65	70	75
His Thr Gln Pro Trp Gln Ala Ala Leu Leu Leu Arg Pro Asn Gln	80	85	90
Leu Tyr Cys Gly Ala Val Leu Val His Pro Gln Trp Leu Leu Thr	95	100	105
Ala Ala His Cys Arg Lys Lys Val Phe Arg Val Arg Leu Gly His	110	115	120
Tyr Ser Leu Ser Pro Val Tyr Glu Ser Gly Gln Gln Met Phe Gln	125	130	135
Gly Val Lys Ser Ile Pro His Pro Gly Tyr Ser His Pro Gly His	140	145	150
Ser Asn Asp Leu Met Leu Ile Lys Leu Asn Arg Arg Ile Arg Pro	155	160	165
Thr Lys Asp Val Arg Pro Ile Asn Val Ser Ser His Cys Pro Ser	170	175	180
Ala Gly Thr Lys Cys Leu Val Ser Gly Trp Gly Thr Thr Lys Ser	185	190	195
Pro Gln Val His Phe Pro Lys Val Leu Gln Cys Leu Asn Ile Ser	200	205	210
Val Leu Ser Gln Lys Arg Cys Glu Asp Ala Tyr Pro Arg Gln Ile	215	220	225
Asp Asp Thr Met Phe Cys Ala Gly Asp Lys Ala Gly Arg Asp Ser	230	235	240
Cys Gln Gly Asp Ser Gly Gly Pro Val Val Cys Asn Gly Ser Leu	245	250	255
Gln Gly Leu Val Ser Trp Gly Asp Tyr Pro Cys Ala Arg Pro Asn	260	265	270
Arg Pro Gly Val Tyr Thr Asn Leu Cys Lys Phe Thr Lys Trp Ile	275	280	285
Gln Glu Thr Ile Gln Ala Asn Ser	290		

<210> 310

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 310
tcctgtgacc acccctctaa cacc 24

<210> 311
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 311
ctggaacatc tgctgcccag attc 24

<210> 312
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 312
gtcggatgac agcagcagcc gcatcatcaa tggatccgac tgcgatatgc 50

<210> 313
<211> 3010
<212> DNA
<213> Homo sapiens

<400> 313
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ccggccgcgc gacaagccgc agcggccgag ctgcggctac gtgctgtgca 100
ccgtgctgct ggccctggct gtgctgctgg ctgtagctgt caccggtgcc 150
gtgctcttcc tgaaccacgc ccacgcgccg ggcacggcgc cccacactgt 200
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 <211> 461
 <212> PRT
 <213> Homo sapiens

<400> 314
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 Val Leu Cys Thr Val Leu Leu Ala Leu Ala Val Leu Leu Ala Val
 35 40 45
 Ala Val Thr Gly Ala Val Leu Phe Leu Asn His Ala His Ala Pro
 50 55 60
 Gly Thr Ala Pro Pro Pro Val Val Ser Thr Gly Ala Ala Ser Ala
 65 70 75
 Asn Ser Ala Leu Val Thr Val Glu Arg Ala Asp Ser Ser His Leu

80										85					90				
Ser	Ile	Leu	Ile	Asp	Pro	Arg	Cys	Pro	Asp	Leu	Thr	Asp	Ser	Phe					
				95					100					105					
Ala	Arg	Leu	Glu	Ser	Ala	Gln	Ala	Ser	Val	Leu	Gln	Ala	Leu	Thr					
				110					115					120					
Glu	His	Gln	Ala	Gln	Pro	Arg	Leu	Val	Gly	Asp	Gln	Glu	Gln	Glu					
				125					130					135					
Leu	Leu	Asp	Thr	Leu	Ala	Asp	Gln	Leu	Pro	Arg	Leu	Leu	Ala	Arg					
				140					145					150					
Ala	Ser	Glu	Leu	Gln	Thr	Glu	Cys	Met	Gly	Leu	Arg	Lys	Gly	His					
				155					160					165					
Gly	Thr	Leu	Gly	Gln	Gly	Leu	Ser	Ala	Leu	Gln	Ser	Glu	Gln	Gly					
				170					175					180					
Arg	Leu	Ile	Gln	Leu	Leu	Ser	Glu	Ser	Gln	Gly	His	Met	Ala	His					
				185					190					195					
Leu	Val	Asn	Ser	Val	Ser	Asp	Ile	Leu	Asp	Ala	Leu	Gln	Arg	Asp					
				200					205					210					
Arg	Gly	Leu	Gly	Arg	Pro	Arg	Asn	Lys	Ala	Asp	Leu	Gln	Arg	Ala					
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Pro	Ala	Arg	Gly	Thr	Arg	Pro	Arg	Gly	Cys	Ala	Thr	Gly	Ser	Arg					
				230					235					240					
Pro	Arg	Asp	Cys	Leu	Asp	Val	Leu	Leu	Ser	Gly	Gln	Gln	Asp	Asp					
				245					250					255					
Gly	Val	Tyr	Ser	Val	Phe	Pro	Thr	His	Tyr	Pro	Ala	Gly	Phe	Gln					
				260					265					270					
Val	Tyr	Cys	Asp	Met	Arg	Thr	Asp	Gly	Gly	Gly	Trp	Thr	Val	Phe					
				275					280					285					
Gln	Arg	Arg	Glu	Asp	Gly	Ser	Val	Asn	Phe	Phe	Arg	Gly	Trp	Asp					
				290					295					300					
Ala	Tyr	Arg	Asp	Gly	Phe	Gly	Arg	Leu	Thr	Gly	Glu	His	Trp	Leu					
				305					310					315					
Gly	Leu	Lys	Arg	Ile	His	Ala	Leu	Thr	Thr	Gln	Ala	Ala	Tyr	Glu					
				320					325					330					
Leu	His	Val	Asp	Leu	Glu	Asp	Phe	Glu	Asn	Gly	Thr	Ala	Tyr	Ala					
				335					340					345					
Arg	Tyr	Gly	Ser	Phe	Gly	Val	Gly	Leu	Phe	Ser	Val	Asp	Pro	Glu					
				350					355					360					
Glu	Asp	Gly	Tyr	Pro	Leu	Thr	Val	Ala	Asp	Tyr	Ser	Gly	Thr	Ala					
				365					370					375					

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<210> 319

<211> 280

<212> PRT

<213> Homo sapiens

<400> 319

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Arg	His	Pro	Glu	Pro	Arg	Arg	Thr	Glu	His	Arg	Ala	Pro	Ser	Ser	35	40	45	
Thr	Trp	Arg	Pro	Val	Ala	Leu	Thr	Leu	Leu	Thr	Leu	Cys	Leu	Val	50	55	60	
Leu	Leu	Ile	Gly	Leu	Ala	Ala	Leu	Gly	Leu	Leu	Phe	Phe	Gln	Tyr	65	70	75	
Tyr	Gln	Leu	Ser	Asn	Thr	Gly	Gln	Asp	Thr	Ile	Ser	Gln	Met	Glu	80	85	90	
Glu	Arg	Leu	Gly	Asn	Thr	Ser	Gln	Glu	Leu	Gln	Ser	Leu	Gln	Val	95	100	105	
Gln	Asn	Ile	Lys	Leu	Ala	Gly	Ser	Leu	Gln	His	Val	Ala	Glu	Lys	110	115	120	
Leu	Cys	Arg	Glu	Leu	Tyr	Asn	Lys	Ala	Gly	Ala	His	Arg	Cys	Ser	125	130	135	
Pro	Cys	Thr	Glu	Gln	Trp	Lys	Trp	His	Gly	Asp	Asn	Cys	Tyr	Gln	140	145	150	
Phe	Tyr	Lys	Asp	Ser	Lys	Ser	Trp	Glu	Asp	Cys	Lys	Tyr	Phe	Cys	155	160	165	
Leu	Ser	Glu	Asn	Ser	Thr	Met	Leu	Lys	Ile	Asn	Lys	Gln	Glu	Asp	170	175	180	
Leu	Glu	Phe	Ala	Ala	Ser	Gln	Ser	Tyr	Ser	Glu	Phe	Phe	Tyr	Ser	185	190	195	

Tyr Trp Thr Gly Leu Leu Arg Pro Asp Ser Gly Lys Ala Trp Leu
 200 205 210
 Trp Met Asp Gly Thr Pro Phe Thr Ser Glu Leu Phe His Ile Ile
 215 220 225
 Ile Asp Val Thr Ser Pro Arg Ser Arg Asp Cys Val Ala Ile Leu
 230 235 240
 Asn Gly Met Ile Phe Ser Lys Asp Cys Lys Glu Leu Lys Arg Cys
 245 250 255
 Val Cys Glu Arg Arg Ala Gly Met Val Lys Pro Glu Ser Leu His
 260 265 270
 Val Pro Pro Glu Thr Leu Gly Glu Gly Asp
 275 280

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 <212> DNA
 <213> Homo sapiens

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 <221> unsure
 <222> 59, 95, 149, 331, 364, 438, 446
 <223> unknown base

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 cttttgccac aattcggcat ccagagcccc ggcgcacaga gcacagggnt 150
 cctttttcaa cgtggcgacc agtggccctg accctgctga ctttgtgctt 200
 ggtgctgctg atagggctgg cagccctggg gcttttgttt tttcagtact 250
 accagctctc caatactggt caagacacca tttctcaaat ggaagaaaga 300
 ttaggaaata cgtcccaaga gttgcaattt nttcaagtcc agaataataa 350
 gcttgcagga agtntgcagc atgtggctga aaaactctgt cgtgagctgt 400
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 atacacacac cacttccc 468

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 <211> 23
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 <213> Artificial Sequence

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 <223> Synthetic oligonucleotide probe

<400> 321

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<210> 322

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 322

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<210> 323

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 323

ccacacagtc tctgcttctt ggg 23

<210> 324

<211> 40

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 324

atgctggatg atgatgggga caccacatg agcctgcatt 40

<210> 325

<211> 2988

<212> DNA

<213> Homo sapiens

<400> 325

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gaggcgcggc tccggggatt cggctcgggc cgctggctct gctctgcggg 100

gagggagcgg gcccgcccgc ggggcccag ccctccggat ccgccccctc 150

cccggccccg cccctcggga gactcctctg gctgctctgg gggttcgccg 200

gggcccggga cccgcggtcc gggcgccatg cgggcatcgc tgctgctgtc 250

ggtgctgcgg cccgcagggc ccgtggccgt gggcatctcc ctgggcttca 300

ccctgagcct gctcagcgtc acctgggtgg aggagccgtg cggcccaggc 350

ccgccccaac ctggagactc tgagctgccg ccgcgcggca acaccaacgc 400

ggcgcgccgg cccaactcgg tgcagcccgg agcggagcgc gagaagcccg 450

0941068, 0941069, 0941070

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 ggcgtttccc cgggtgcccgg gtgccatggc tcagtgtgca gacagccgca 2000
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<211> 775

<212> PRT

<213> Homo sapiens

<400> 326

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				20					25					30
Val	Thr	Trp	Val	Glu	Glu	Pro	Cys	Gly	Pro	Gly	Pro	Pro	Gln	Pro
				35					40					45

Gly	Asp	Ser	Glu	Leu	Pro	Pro	Arg	Gly	Asn	Thr	Asn	Ala	Ala	Arg		50	55	60
Arg	Pro	Asn	Ser	Val	Gln	Pro	Gly	Ala	Glu	Arg	Glu	Lys	Pro	Gly		65	70	75
Ala	Gly	Glu	Gly	Ala	Gly	Glu	Asn	Trp	Glu	Pro	Arg	Val	Leu	Pro		80	85	90
Tyr	His	Pro	Ala	Gln	Pro	Gly	Gln	Ala	Ala	Lys	Lys	Ala	Val	Arg		95	100	105
Thr	Arg	Tyr	Ile	Ser	Thr	Glu	Leu	Gly	Ile	Arg	Gln	Arg	Leu	Leu		110	115	120
Val	Ala	Val	Leu	Thr	Ser	Gln	Thr	Thr	Leu	Pro	Thr	Leu	Gly	Val		125	130	135
Ala	Val	Asn	Arg	Thr	Leu	Gly	His	Arg	Leu	Glu	Arg	Val	Val	Phe		140	145	150
Leu	Thr	Gly	Ala	Arg	Gly	Arg	Arg	Ala	Pro	Pro	Gly	Met	Ala	Val		155	160	165
Val	Thr	Leu	Gly	Glu	Glu	Arg	Pro	Ile	Gly	His	Leu	His	Leu	Ala		170	175	180
Leu	Arg	His	Leu	Leu	Glu	Gln	His	Gly	Asp	Asp	Phe	Asp	Trp	Phe		185	190	195
Phe	Leu	Val	Pro	Asp	Thr	Thr	Tyr	Thr	Glu	Ala	His	Gly	Leu	Ala		200	205	210
Arg	Leu	Thr	Gly	His	Leu	Ser	Leu	Ala	Ser	Ala	Ala	His	Leu	Tyr		215	220	225
Leu	Gly	Arg	Pro	Gln	Asp	Phe	Ile	Gly	Gly	Glu	Pro	Thr	Pro	Gly		230	235	240
Arg	Tyr	Cys	His	Gly	Gly	Phe	Gly	Val	Leu	Leu	Ser	Arg	Met	Leu		245	250	255
Leu	Gln	Gln	Leu	Arg	Pro	His	Leu	Glu	Gly	Cys	Arg	Asn	Asp	Ile		260	265	270
Val	Ser	Ala	Arg	Pro	Asp	Glu	Trp	Leu	Gly	Arg	Cys	Ile	Leu	Asp		275	280	285
Ala	Thr	Gly	Val	Gly	Cys	Thr	Gly	Asp	His	Glu	Gly	Val	His	Tyr		290	295	300
Ser	His	Leu	Glu	Leu	Ser	Pro	Gly	Glu	Pro	Val	Gln	Glu	Gly	Asp		305	310	315
Pro	His	Phe	Arg	Ser	Ala	Leu	Thr	Ala	His	Pro	Val	Arg	Asp	Pro		320	325	330
Val	His	Met	Tyr	Gln	Leu	His	Lys	Ala	Phe	Ala	Arg	Ala	Glu	Leu				

				335					340					345
Glu	Arg	Thr	Tyr	Gln 350	Glu	Ile	Gln	Glu	Leu 355	Gln	Trp	Glu	Ile	Gln 360
Asn	Thr	Ser	His	Leu 365	Ala	Val	Asp	Gly	Asp 370	Arg	Ala	Ala	Ala	Trp 375
Pro	Val	Gly	Ile	Pro 380	Ala	Pro	Ser	Arg	Pro 385	Ala	Ser	Arg	Phe	Glu 390
Val	Leu	Arg	Trp	Asp 395	Tyr	Phe	Thr	Glu	Gln 400	His	Ala	Phe	Ser	Cys 405
Ala	Asp	Gly	Ser	Pro 410	Arg	Cys	Pro	Leu	Arg 415	Gly	Ala	Asp	Arg	Ala 420
Asp	Val	Ala	Asp	Val 425	Leu	Gly	Thr	Ala	Leu 430	Glu	Glu	Leu	Asn	Arg 435
Arg	Tyr	His	Pro	Ala 440	Leu	Arg	Leu	Gln	Lys 445	Gln	Gln	Leu	Val	Asn 450
Gly	Tyr	Arg	Arg	Phe 455	Asp	Pro	Ala	Arg	Gly 460	Met	Glu	Tyr	Thr	Leu 465
Asp	Leu	Gln	Leu	Glu 470	Ala	Leu	Thr	Pro	Gln 475	Gly	Gly	Arg	Arg	Pro 480
Leu	Thr	Arg	Arg	Val 485	Gln	Leu	Leu	Arg	Pro 490	Leu	Ser	Arg	Val	Glu 495
Ile	Leu	Pro	Val	Pro 500	Tyr	Val	Thr	Glu	Ala 505	Ser	Arg	Leu	Thr	Val 510
Leu	Leu	Pro	Leu	Ala 515	Ala	Ala	Glu	Arg	Asp 520	Leu	Ala	Pro	Gly	Phe 525
Leu	Glu	Ala	Phe	Ala 530	Thr	Ala	Ala	Leu	Glu 535	Pro	Gly	Asp	Ala	Ala 540
Ala	Ala	Leu	Thr	Leu 545	Leu	Leu	Leu	Tyr	Glu 550	Pro	Arg	Gln	Ala	Gln 555
Arg	Val	Ala	His	Ala 560	Asp	Val	Phe	Ala	Pro 565	Val	Lys	Ala	His	Val 570
Ala	Glu	Leu	Glu	Arg 575	Arg	Phe	Pro	Gly	Ala 580	Arg	Val	Pro	Trp	Leu 585
Ser	Val	Gln	Thr	Ala 590	Ala	Pro	Ser	Pro	Leu 595	Arg	Leu	Met	Asp	Leu 600
Leu	Ser	Lys	Lys	His 605	Pro	Leu	Asp	Thr	Leu 610	Phe	Leu	Leu	Ala	Gly 615
Pro	Asp	Thr	Val	Leu 620	Thr	Pro	Asp	Phe	Leu 625	Asn	Arg	Cys	Arg	Met 630

His	Ala	Ile	Ser	Gly	Trp	Gln	Ala	Phe	Phe	Pro	Met	His	Phe	Gln
				635					640					645
Ala	Phe	His	Pro	Gly	Val	Ala	Pro	Pro	Gln	Gly	Pro	Gly	Pro	Pro
				650					655					660
Glu	Leu	Gly	Arg	Asp	Thr	Gly	Arg	Phe	Asp	Arg	Gln	Ala	Ala	Ser
				665					670					675
Glu	Ala	Cys	Phe	Tyr	Asn	Ser	Asp	Tyr	Val	Ala	Ala	Arg	Gly	Arg
				680					685					690
Leu	Ala	Ala	Ala	Ser	Glu	Gln	Glu	Glu	Glu	Leu	Leu	Glu	Ser	Leu
				695					700					705
Asp	Val	Tyr	Glu	Leu	Phe	Leu	His	Phe	Ser	Ser	Leu	His	Val	Leu
				710					715					720
Arg	Ala	Val	Glu	Pro	Ala	Leu	Leu	Gln	Arg	Tyr	Arg	Ala	Gln	Thr
				725					730					735
Cys	Ser	Ala	Arg	Leu	Ser	Glu	Asp	Leu	Tyr	His	Arg	Cys	Leu	Gln
				740					745					750
Ser	Val	Leu	Glu	Gly	Leu	Gly	Ser	Arg	Thr	Gln	Leu	Ala	Met	Leu
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Leu	Phe	Glu	Gln	Glu	Gln	Gly	Asn	Ser	Thr					
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 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

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 <210> 328
 <211> 20
 <212> DNA
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 <220>
 <223> Synthetic oligonucleotide probe

 <400> 328
 ctgatgtggc cgatgttctg 20

 <210> 329
 <211> 20
 <212> DNA
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 <220>

<223> Synthetic oligonucleotide probe

<400> 329
atggctcagt gtgcagacag 20

<210> 330
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 330
gcatgctgct ccgtgaagta gtcc 24

<210> 331
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 331
atgcatggga aagaaggcct gccc 24

<210> 332
<211> 47
<212> DNA
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<220>
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<400> 332
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<210> 333
<211> 1095
<212> DNA
<213> Homo sapiens

<400> 333
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tgctcttttc ccagtgggc gagggaaactc ggggcgattg gctgggaact 250
gtatccaccc aaatgtcacc gatttcttcc tatgcaggaa atgagcagac 300
ccatcaataa gaaatttctc agcctggccg aaaatggttg gccccacgaa 350

gccacgacaa ctggaggcaa agaggggttg tcaacgcccc gcctcattgg 400
 aaaaccaa at cagatctggg acctatatag cgtggcggag gcggggcgat 450
 gattgtcgcg ctgcaccca ctgcagctgc gcacagtcgc atttctttcc 500
 ccgccccctga gaccctgcag caccatctgt catggcggct gggctgtttg 550
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<210> 334

<211> 153

<212> PRT

<213> Homo sapiens

<400> 334

Met	Ala	Ala	Gly	Leu	Phe	Gly	Leu	Ser	Ala	Arg	Arg	Leu	Leu	Ala
1				5					10					15
Ala	Ala	Ala	Thr	Arg	Gly	Leu	Pro	Ala	Ala	Arg	Val	Arg	Trp	Glu
			20					25						30
Ser	Ser	Phe	Ser	Arg	Thr	Val	Val	Ala	Pro	Ser	Ala	Val	Ala	Gly
			35					40						45
Lys	Arg	Pro	Pro	Glu	Pro	Thr	Thr	Pro	Trp	Gln	Glu	Asp	Pro	Glu
			50					55						60
Pro	Glu	Asp	Glu	Asn	Leu	Tyr	Glu	Lys	Asn	Pro	Asp	Ser	His	Gly
			65					70						75
Tyr	Asp	Lys	Asp	Pro	Val	Leu	Asp	Val	Trp	Asn	Met	Arg	Leu	Val
			80					85						90
Phe	Phe	Phe	Gly	Val	Ser	Ile	Ile	Leu	Val	Leu	Gly	Ser	Thr	Phe
			95					100						105
Val	Ala	Tyr	Leu	Pro	Asp	Tyr	Arg	Met	Lys	Glu	Trp	Ser	Arg	Arg

	110		115		120									
Glu	Ala	Glu	Arg	Leu	Val	Lys	Tyr	Arg	Glu	Ala	Asn	Gly	Leu	Pro
				125					130					135
Ile	Met	Glu	Ser	Asn	Cys	Phe	Asp	Pro	Ser	Lys	Ile	Gln	Leu	Pro
				140					145					150

Glu Asp Glu

<210> 335
 <211> 442
 <212> DNA
 <213> Homo sapiens

<400> 335
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 cgacgcgagg gctcccgcc gcccgctcc gctgggaatc tagcttctcc 100
 aggactgtgg tcgccccgtc cgctgtggcg ggaaagcggc cccagaacc 150
 gaccacaccg tggcaagagg acccagaacc cgaggacgaa aacttgatg 200
 agaagaaccc agactcccat gggtatgaca aggacccgt tttggacgtc 250
 tggaacatgc gacttgctct cttctttggc gtctccatca tcctggtcct 300
 tggcagcacc tttgtggcct atctgcctga ctacaggatg aaagagtgg 350
 cccgccgca agctgagagg cttgtgaaat accgagaggc caatggcctt 400
 cccatcatgg aatccaactg cttcgacccc agcaagatcc ag 442

<210> 336
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 336
 ctgagaccct gcagcaccat ctg 23

<210> 337
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 337
 ggtgcttctt gagccccact tagc 24

<210> 338

<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 338
aatctagctt ctccaggact gtggtcgccc cgtccgctgt 40

<210> 339
<211> 2162
<212> DNA
<213> Homo sapiens

<400> 339
gcggcggcta tgccgcttgc tctgctcgtc ctgttgctcc tggggcccg 50
cggctggtgc cttgcagaac cccacgcga cagcctgcgg gaggaacttg 100
tcatcacccc gctgccttcc ggggacgtag ccgccacatt ccagttccgc 150
acgcgctggg attcggagct tcagcgggaa ggagtgtccc attacaggct 200
ctttccaaa gccctggggc agctgatctc caagtattct ctacgggagc 250
tgcacctgtc attcacacaa ggcttttgga ggacccgata ctgggggcca 300
cccttcctgc aggcccatc aggtgcagag ctgtgggtct ggttccaaga 350
cactgtcact gatgtggata aatcttgga ggagctcagt aatgtcctct 400
cagggatctt ctgcgcctct ctcaacttca tcgactccac caacacagtc 450
actcccaactg cctccttcaa acccctgggt ctggccaatg aactgacca 500
ctactttctg cgctatgctg tgctgccgcg ggaggtggtc tgcaccgaaa 550
acctacccc ctggaagaag ctcttgccct gtagttccaa ggcaggcctc 600
tctgtgtgc tgaaggcaga tcgcttggtc cacaccagct accactccca 650
ggcagtgc atccgccctg tttgcagaaa tgcacgctgt actagcatct 700
cctgggagct gaggcagacc ctgtcagttg tatttgatgc cttcatcacg 750
gggcagggaa agaaagactg gtccctcttc cggatgttct cccgaaccct 800
cacggagccc tgccccctgg cttcagagag ccgagtctat gtggacatca 850
ccacctaaa ccaggacaac gagacattag aggtgcaccc acccccgacc 900
actacatctc aggacgtcat cctaggcact cggaagacct atgccatcta 950
tgacttgctt gacaccgcca tgatcaacaa ctctcgaaac ctcaacatcc 1000
agctcaagtg gaagagaccc ccagagaatg aggccccccc agtgcccttc 1050

ctgcatgccc	agcggtagct	gagtggctat	gggctgcaga	agggggagct	1100
gagcacactg	ctgtacaaca	cccacccata	ccgggccttc	ccgggtgctgc	1150
tgctggacac	cgtaccctgg	tatctgcggc	tgtatgtgca	caccctcacc	1200
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tgcccaggac	cggctgcaac	cccacctcct	ggagatgctg	attcagctgc	1300
cggccaactc	agtcaccaag	gtttccatcc	agtttgagcg	ggcgctgctg	1350
aagtggaccg	agtacacgcc	agatcctaac	catggcttct	atgtcagccc	1400
atctgtcctc	agcgcccttg	tgcccagcat	ggtagcagcc	aagccagtgg	1450
actgggaaga	gagtcccctc	ttcaacagcc	tgttcccagt	ctctgatggc	1500
tctaactact	ttgtgcggct	ctacacggag	ccgctgctgg	tgaacctgcc	1550
gacaccggac	ttcagcatgc	cctacaacgt	gatctgcctc	acgtgcactg	1600
tggtggccgt	gtgctacggc	tccttctaca	atctcctcac	ccgaaccttc	1650
cacatcgagg	agccccgcac	aggtggcctg	gccaagcggc	tggccaacct	1700
tatccggcgc	gcccgaggtg	tccccccact	ctgattcttg	ccctttccag	1750
cagctgcagc	tgccgtttct	ctctggggag	gggagcccaa	gggctgtttc	1800
tgccacttgc	tctcctcaga	gttggctttt	gaaccaaagt	gccctggacc	1850
aggtcagggc	ctacagctgt	gttgtccagt	acaggagcca	cgagccaaat	1900
gtggcatttg	aatttgaatt	aacttagaaa	ttcatttcct	cacctgtagt	1950
ggccacctct	atattgaggt	gctcaataag	caaaagtggg	cgggtggctgc	2000
tgtattggac	agcacagaaa	aagatttcca	tcaccacaga	aaggtcggct	2050
ggcagcactg	gccaaggtga	tgggggtgtgc	tacacagtgt	atgtcactgt	2100
gtagtggatg	gagtttactg	tttgtggaat	aaaaacggct	gtttccgtgg	2150
aaaaaaaaaa	aa	2162			

<210> 340

<212> PRT

<400> 340

Trp Cys Leu Ala Glu Pro Pro Arg Asp Ser Leu Arg Glu Glu Leu
20 25 30

SECRET

	320		325		330
Gln Leu Lys Trp	Lys Arg Pro Pro Glu	Asn Glu Ala Pro Pro	Val		
	335		340		345
Pro Phe Leu His	Ala Gln Arg Tyr Val	Ser Gly Tyr Gly Leu	Gln		
	350		355		360
Lys Gly Glu Leu	Ser Thr Leu Leu Tyr	Asn Thr His Pro Tyr	Arg		
	365		370		375
Ala Phe Pro Val	Leu Leu Leu Asp Thr	Val Pro Trp Tyr Leu	Arg		
	380		385		390
Leu Tyr Val His	Thr Leu Thr Ile Thr	Ser Lys Gly Lys Glu	Asn		
	395		400		405
Lys Pro Ser Tyr	Ile His Tyr Gln Pro	Ala Gln Asp Arg Leu	Gln		
	410		415		420
Pro His Leu Leu	Glu Met Leu Ile Gln	Leu Pro Ala Asn Ser	Val		
	425		430		435
Thr Lys Val Ser	Ile Gln Phe Glu Arg	Ala Leu Leu Lys Trp	Thr		
	440		445		450
Glu Tyr Thr Pro	Asp Pro Asn His Gly	Phe Tyr Val Ser Pro	Ser		
	455		460		465
Val Leu Ser Ala	Leu Val Pro Ser Met	Val Ala Ala Lys Pro	Val		
	470		475		480
Asp Trp Glu Glu	Ser Pro Leu Phe Asn	Ser Leu Phe Pro Val	Ser		
	485		490		495
Asp Gly Ser Asn	Tyr Phe Val Arg Leu	Tyr Thr Glu Pro Leu	Leu		
	500		505		510
Val Asn Leu Pro	Thr Pro Asp Phe Ser	Met Pro Tyr Asn Val	Ile		
	515		520		525
Cys Leu Thr Cys	Thr Val Val Ala Val	Cys Tyr Gly Ser Phe	Tyr		
	530		535		540
Asn Leu Leu Thr	Arg Thr Phe His Ile	Glu Glu Pro Arg Thr	Gly		
	545		550		555
Gly Leu Ala Lys	Arg Leu Ala Asn Leu	Ile Arg Arg Ala Arg	Gly		
	560		565		570
Val Pro Pro Leu					

<210> 341
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 341
tggacaccgt accctggtat ctgc 24

<210> 342
<211> 24
<212> DNA
<213> Artificial Sequeunce

<220>
<221> Artificial Sequence
<222> 1-24
<223> Synthetic oligonucleotide probe

<400> 342
ccaactctga ggagagcaag tggc 24

<210> 343
<211> 44
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 343
tgtatgtgca caccctcacc atcacctcca agggcaagga gaac 44

<210> 344
<211> 762
<212> DNA
<213> Homo sapiens

<400> 344
caacatgggg tccagcagct tcttggctct catgggtgtct ctcgttcttg 50
tgaccctggg ggctgtggaa ggagttaaag agggatataga gaaagcaggg 100
gtttgcccag ctgacaacgt acgctgcttc aagtccgatc ctccccagtg 150
tcacacagac caggactgtc tgggggaaaag gaagtgttgt tacctgcact 200
gtggcttcaa gtgtgtgatt cctgtgaagg aactggaaga aggaggaaac 250
aaggatgaag atgtgtcaag gccataccct gagccaggat gggaggccaa 300
gtgtccaggc tcctcctcta ccagggtgtcc tcagaaatga tgctgggtcc 350
tttctacctc tgggggtcac tctcacttgg cacctgcccc tgagggtcct 400
gagacttggg atatggaaga agcaataccc aacccaccca aagaaaacct 450
gagcttgaag tccttttccc caaaaagagg gaagagtcac aaaaagtcca 500
gaccccgagg acggtacttt ccctctctac ctggtgctcc tccctaatagc 550

tcatgaatgg acccctcatg aatgaaacca gtgcccttat aagagacccc 600
aaagagctgc cttgcccttc tgcaatgtgt gatcacagct agaaggcact 650
gtcagagaag agaaactggc cctcaccaga tgctgaatct gctgggtgcct 700
tgatcttggc cttcccagcc tctagaactg taagaaataa atatttgctg 750
tttataatcc aa 762

<210> 345
<211> 111
<212> PRT
<213> Homo sapiens

<400> 345
Met Gly Ser Ser Ser Phe Leu Val Leu Met Val Ser Leu Val Leu
1 5 10 15
Val Thr Leu Val Ala Val Glu Gly Val Lys Glu Gly Ile Glu Lys
20 25 30
Ala Gly Val Cys Pro Ala Asp Asn Val Arg Cys Phe Lys Ser Asp
35 40 45
Pro Pro Gln Cys His Thr Asp Gln Asp Cys Leu Gly Glu Arg Lys
50 55 60
Cys Cys Tyr Leu His Cys Gly Phe Lys Cys Val Ile Pro Val Lys
65 70 75
Glu Leu Glu Glu Gly Gly Asn Lys Asp Glu Asp Val Ser Arg Pro
80 85 90
Tyr Pro Glu Pro Gly Trp Glu Ala Lys Cys Pro Gly Ser Ser Ser
95 100 105
Thr Arg Cys Pro Gln Lys
110

<210> 346
<211> 2528
<212> DNA
<213> Homo sapiens

<400> 346
aaactcagca cttgccggag tggctcattg ttaagacaaa ggggtgtgcac 50
ttcctggcca ggaaacctga gcggtgagac tcccagctgc ctacatcaag 100
gccccaggac atgcagaacc ttcctctaga acccgaccca ccaccatgag 150
gtcctgcctg tggagatgca ggcacctgag ccaaggcgtc cagtggctcct 200
tgcttctggc tgtcctggtc ttctttctct tcgccttgcc ctcttttatt 250
aaggagcctc aaacaaagcc ttccaggcat caacgcacag agaacattaa 300

agaaaggctct ctacagtccc tggcaaagcc taagtcccag gcacccacaa 350
 gggcgaggag gacaaccatc tatgcagagc cagcgccaga gaacaatgcc 400
 ctcaacacac aaaccagcc caaggccac accaccggag acagaggaaa 450
 ggaggccaac caggcaccgc cggaggagca ggacaagggtg cccacacag 500
 cacagagggc agcatggaag agcccagaaa aagagaaaac catggtgaac 550
 aactgtcac ccagagggca agatgcaggg atggcctctg gcaggacaga 600
 ggcacaatca tggaagagcc aggacacaaa gacgaccaa ggaaatgggg 650
 gccagaccag gaagctgacg gcctccagga cgggtgtcaga gaagcaccag 700
 ggcaaagcgg caaccacagc caagacgctc attcccaaaa gtcagcacag 750
 aatgctggct cccacaggag cagtgtcaac aaggacgaga cagaaaggag 800
 tgaccacagc agtcatcca cctaaggaga agaaacctca ggccaccca 850
 cccctgccc ctttcagag cccacgacg cagagaaacc aaagactgaa 900
 ggccgccaac ttcaaactg agcctcgggtg ggattttgag gaaaaataca 950
 gcttcgaaat aggaggcctt cagacgactt gccctgactc tgtgaagatc 1000
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 aacactttgc accaccctt ggcttcatgg agctcaacta ctccttggtg 1150
 cagaaggctg tgacacgctt ccctccagtg cccagcagc agctgctcct 1200
 ggccagcctc cccgctggga gcctccgggtg catcacctgt gccgtgggtg 1250
 gcaacggggg catcctgaac aactcccaca tgggccagga gatagacagt 1300
 cacgactacg tgttccgatt gagcggagct ctcattaaag gctacgaaca 1350
 ggatgtgggg actcggacat ccttctacgg ctttaccgcc ttctccctga 1400
 cccagtcact ccttatattg ggcaatcggg gtttcaagaa cgtgcctctt 1450
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tcaagctgga gagagaagtc tggaagcggc tacacgatga agggataatc 1900
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caataccaca attcctgctg aaaaacactc ttccagtcca aaagcttctt 2250
gatacagaaa aaagagcctg gatttacaga aacatataga tctggtttga 2300
attccagatc gagtttacag ttgtgaaatc ttgaaggtat tacttaactt 2350
cactacagat tgtctagaag acctttctag gagttatctg attctagaag 2400
ggcttatact tgtccttgct tttaagctat ttgacaactc tacgtgttgt 2450
agaaaactga taataatata aatgattggt gtccatggaa aggcaaataa 2500
atcttctaca gtgaaaaaaaa aaaaaaaaa 2528

<210> 347

<211> 600

<212> PRT

<213> Homo sapiens

<400> 347

Met	Arg	Ser	Cys	Leu	Trp	Arg	Cys	Arg	His	Leu	Ser	Gln	Gly	Val
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Gln	Trp	Ser	Leu	Leu	Leu	Ala	Val	Leu	Val	Phe	Phe	Leu	Phe	Ala
				20					25					30
Leu	Pro	Ser	Phe	Ile	Lys	Glu	Pro	Gln	Thr	Lys	Pro	Ser	Arg	His
				35					40					45
Gln	Arg	Thr	Glu	Asn	Ile	Lys	Glu	Arg	Ser	Leu	Gln	Ser	Leu	Ala
				50					55					60
Lys	Pro	Lys	Ser	Gln	Ala	Pro	Thr	Arg	Ala	Arg	Arg	Thr	Thr	Ile
				65					70					75
Tyr	Ala	Glu	Pro	Ala	Pro	Glu	Asn	Asn	Ala	Leu	Asn	Thr	Gln	Thr
				80					85					90
Gln	Pro	Lys	Ala	His	Thr	Thr	Gly	Asp	Arg	Gly	Lys	Glu	Ala	Asn
				95					100					105

Gln	Ala	Pro	Pro	Glu	Glu	Gln	Asp	Lys	Val	Pro	His	Thr	Ala	Gln	
				110					115					120	
Arg	Ala	Ala	Trp	Lys	Ser	Pro	Glu	Lys	Glu	Lys	Thr	Met	Val	Asn	
				125					130					135	
Thr	Leu	Ser	Pro	Arg	Gly	Gln	Asp	Ala	Gly	Met	Ala	Ser	Gly	Arg	
				140					145					150	
Thr	Glu	Ala	Gln	Ser	Trp	Lys	Ser	Gln	Asp	Thr	Lys	Thr	Thr	Gln	
				155					160					165	
Gly	Asn	Gly	Gly	Gln	Thr	Arg	Lys	Leu	Thr	Ala	Ser	Arg	Thr	Val	
				170					175					180	
Ser	Glu	Lys	His	Gln	Gly	Lys	Ala	Ala	Thr	Thr	Ala	Lys	Thr	Leu	
				185					190					195	
Ile	Pro	Lys	Ser	Gln	His	Arg	Met	Leu	Ala	Pro	Thr	Gly	Ala	Val	
				200					205					210	
Ser	Thr	Arg	Thr	Arg	Gln	Lys	Gly	Val	Thr	Thr	Ala	Val	Ile	Pro	
				215					220					225	
Pro	Lys	Glu	Lys	Lys	Pro	Gln	Ala	Thr	Pro	Pro	Pro	Ala	Pro	Phe	
				230					235					240	
Gln	Ser	Pro	Thr	Thr	Gln	Arg	Asn	Gln	Arg	Leu	Lys	Ala	Ala	Asn	
				245					250					255	
Phe	Lys	Ser	Glu	Pro	Arg	Trp	Asp	Phe	Glu	Glu	Lys	Tyr	Ser	Phe	
				260					265					270	
Glu	Ile	Gly	Gly	Leu	Gln	Thr	Thr	Cys	Pro	Asp	Ser	Val	Lys	Ile	
				275					280					285	
Lys	Ala	Ser	Lys	Ser	Leu	Trp	Leu	Gln	Lys	Leu	Phe	Leu	Pro	Asn	
				290					295					300	
Leu	Thr	Leu	Phe	Leu	Asp	Ser	Arg	His	Phe	Asn	Gln	Ser	Glu	Trp	
				305					310					315	
Asp	Arg	Leu	Glu	His	Phe	Ala	Pro	Pro	Phe	Gly	Phe	Met	Glu	Leu	
				320					325					330	
Asn	Tyr	Ser	Leu	Val	Gln	Lys	Val	Val	Thr	Arg	Phe	Pro	Pro	Val	
				335					340					345	
Pro	Gln	Gln	Gln	Leu	Leu	Leu	Ala	Ser	Leu	Pro	Ala	Gly	Ser	Leu	
				350					355					360	
Arg	Cys	Ile	Thr	Cys	Ala	Val	Val	Gly	Asn	Gly	Gly	Ile	Leu	Asn	
				365					370					375	
Asn	Ser	His	Met	Gly	Gln	Glu	Ile	Asp	Ser	His	Asp	Tyr	Val	Phe	
				380					385					390	
Arg	Leu	Ser	Gly	Ala	Leu	Ile	Lys	Gly	Tyr	Glu	Gln	Asp	Val	Gly	

	395		400		405
Thr Arg Thr Ser Phe Tyr Gly Phe Thr	Ala Phe Ser Leu Thr Gln				
410	415	420			
Ser Leu Leu Ile Leu Gly Asn Arg Gly	Phe Lys Asn Val Pro Leu				
425	430	435			
Gly Lys Asp Val Arg Tyr Leu His Phe	Leu Glu Gly Thr Arg Asp				
440	445	450			
Tyr Glu Trp Leu Glu Ala Leu Leu Met	Asn Gln Thr Val Met Ser				
455	460	465			
Lys Asn Leu Phe Trp Phe Arg His Arg	Pro Gln Glu Ala Phe Arg				
470	475	480			
Glu Ala Leu His Met Asp Arg Tyr Leu	Leu Leu His Pro Asp Phe				
485	490	495			
Leu Arg Tyr Met Lys Asn Arg Phe Leu	Arg Ser Lys Thr Leu Asp				
500	505	510			
Gly Ala His Trp Arg Ile Tyr Arg Pro	Thr Thr Gly Ala Leu Leu				
515	520	525			
Leu Leu Thr Ala Leu Gln Leu Cys Asp	Gln Val Ser Ala Tyr Gly				
530	535	540			
Phe Ile Thr Glu Gly His Glu Arg Phe	Ser Asp His Tyr Tyr Asp				
545	550	555			
Thr Ser Trp Lys Arg Leu Ile Phe Tyr	Ile Asn His Asp Phe Lys				
560	565	570			
Leu Glu Arg Glu Val Trp Lys Arg Leu	His Asp Glu Gly Ile Ile				
575	580	585			
Arg Leu Tyr Gln Arg Pro Gly Pro Gly	Thr Ala Lys Ala Lys Asn				
590	595	600			

<210> 348

<211> 496

<212> DNA

<213> Homo sapiens

<400> 348

cgatgcgcgg acccgggcac cccctcctcc tggggctgct gctggtgctg 50

gggccttcgc cggagcagcg agtggaaatt gttcctcgag atctgaggat 100

gaaggacaag tttctaaaac accttacagg ccctctttat tttagtccaa 150

agtgcagcaa acacttccat agactttatc acaacaccag agactgcacc 200

attcctgcat actataaaaag atgcgccagg cttcttacct ggctggctgt 250

cagtccagtg tgcattggagg ataagtgagc agaccgtaca ggagcagcac 300

SECRET

<211> 91

<212> PRT

<213> Home

Met Arg Gly Pro Gly His Pro Leu Leu Leu Gly Leu Leu Leu Val
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Leu Gly Pro Ser Pro Glu Gln Arg Val Glu Ile Val Pro Arg Asp
20 25 30

Leu Arg Met Lys Asp Lys Phe Leu Lys His Leu Thr Gly Pro Leu
35 40 45

Tyr Phe Ser Pro Lys Cys Ser Lys His Phe His Arg Leu Tyr His
50 55 60

Asn Thr Arg Asp Cys Thr Ile Pro Ala Tyr Tyr Lys Arg Cys Ala
65 70 75

Arg Leu Leu Thr Arg Leu Ala Val Ser Pro Val Cys Met Glu Asp
80 85 90

Lys

<211> 1141

<212> DNA

<213> Homo sapiens

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ttctctggga ggcccgaccc cggccgcgcc cagccccac catgccaccc 100

gcggggctcc gccgggccgc gccgctcacc gcaatcgctc tgttggtgct 150

qqqqgctccc ctggtgctgg ccggcgagga ctgcctgtgg tacctggacc 200

qqaatggctc ctggcatccg gggtttaact gcgagttctt caccttctgc 250

tgcgggacct gctaccatcg gtactgctgc agggacctga ccttgcttat 300

caccgaagaq cagcagaagc actgcctggc cttcagcccc aagaccatag 350

cagqcatcgc ctcagctgtg atcctctttg ttgctgtggt tgccaccacc 400

atctgctgct tcctctgttc ctgttgctac ctgtaccgcc ggcgccagca 450

gctccagagc ccatttgaag gccaggagat tccaatgaca ggcatcccag 500
 tgcagccagt ataccatac cccagggacc ccaaagctgg ccctgcaccc 550
 ccacagcctg gcttcatgta cccacctagt ggtcctgctc cccaatatcc 600
 actctaccca gctgggcccc cagtctacaa ccctgcagct cctcctccct 650
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 Asn Cys Glu Phe Phe Thr Phe Cys Cys Gly Thr Cys Tyr His Arg
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 Tyr Cys Cys Arg Asp Leu Thr Leu Leu Ile Thr Glu Arg Gln Gln
 65 70 75
 Lys His Cys Leu Ala Phe Ser Pro Lys Thr Ile Ala Gly Ile Ala
 80 85 90
 Ser Ala Val Ile Leu Phe Val Ala Val Val Ala Thr Thr Ile Cys
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 Cys Phe Leu Cys Ser Cys Cys Tyr Leu Tyr Arg Arg Arg Gln Gln
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Leu Gln Ser Pro Phe Glu Gly Gln Glu Ile Pro Met Thr Gly Ile
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 <212> PRT
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 Pro Phe Pro Trp Asn Lys Ile Arg Leu Pro Glu Tyr Val Ile Pro
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 Val His Tyr Asp Leu Leu Ile His Ala Asn Leu Thr Thr Leu Thr
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103230"254660

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Ser	Thr	Ile	Ile	Leu	His	Ser	His	His	Leu	Gln	Ile	Ser	Arg	Ala		95	100	105
Thr	Leu	Arg	Lys	Gly	Ala	Gly	Glu	Arg	Leu	Ser	Glu	Glu	Pro	Leu		110	115	120
Gln	Val	Leu	Glu	His	Pro	Pro	Gln	Glu	Gln	Ile	Ala	Leu	Leu	Ala		125	130	135
Pro	Glu	Pro	Leu	Leu	Val	Gly	Leu	Pro	Tyr	Thr	Val	Val	Ile	His		140	145	150
Tyr	Ala	Gly	Asn	Leu	Ser	Glu	Thr	Phe	His	Gly	Phe	Tyr	Lys	Ser		155	160	165
Thr	Tyr	Arg	Thr	Lys	Glu	Gly	Glu	Leu	Arg	Ile	Leu	Ala	Ser	Thr		170	175	180
Gln	Phe	Glu	Pro	Thr	Ala	Ala	Arg	Met	Ala	Phe	Pro	Cys	Phe	Asp		185	190	195
Glu	Pro	Ala	Phe	Lys	Ala	Ser	Phe	Ser	Ile	Lys	Ile	Arg	Arg	Glu		200	205	210
Pro	Arg	His	Leu	Ala	Ile	Ser	Asn	Met	Pro	Leu	Val	Lys	Ser	Val		215	220	225
Thr	Val	Ala	Glu	Gly	Leu	Ile	Glu	Asp	His	Phe	Asp	Val	Thr	Val		230	235	240
Lys	Met	Ser	Thr	Tyr	Leu	Val	Ala	Phe	Ile	Ile	Ser	Asp	Phe	Glu		245	250	255
Ser	Val	Ser	Lys	Ile	Thr	Lys	Ser	Gly	Val	Lys	Val	Ser	Val	Tyr		260	265	270
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Ala	Val	Thr	Leu	Leu	Glu	Phe	Tyr	Glu	Asp	Tyr	Phe	Ser	Ile	Pro		290	295	300
Tyr	Pro	Leu	Pro	Lys	Gln	Asp	Leu	Ala	Ala	Ile	Pro	Asp	Phe	Gln		305	310	315
Ser	Gly	Ala	Met	Glu	Asn	Trp	Gly	Leu	Thr	Thr	Tyr	Arg	Glu	Ser		320	325	330
Ala	Leu	Leu	Phe	Asp	Ala	Glu	Lys	Ser	Ser	Ala	Ser	Ser	Lys	Leu		335	340	345
Gly	Ile	Thr	Val	Thr	Val	Ala	His	Glu	Leu	Ala	His	Gln	Trp	Phe		350	355	360
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Asp	Ala	Met	Glu	Val	Asp	Ala	Leu	Asn	Ser	Ser	His	Pro	Val	Ser		
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				425					430					435		
Val	Ser	Tyr	Asp	Lys	Gly	Ala	Cys	Ile	Leu	Asn	Met	Leu	Arg	Glu		
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Tyr	Leu	Ser	Ala	Asp	Ala	Phe	Lys	Ser	Gly	Ile	Val	Gln	Tyr	Leu		
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Leu	Gln	Arg	Gly	Phe	Pro	Leu	Ile	Thr	Ile	Thr	Val	Arg	Gly	Arg		
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Ala	Pro	Asp	Thr	Gly	Tyr	Leu	Trp	His	Val	Pro	Leu	Thr	Phe	Ile		
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Thr	Ser	Lys	Ser	Asn	Met	Val	His	Arg	Phe	Leu	Leu	Lys	Thr	Lys		
				575					580					585		
Thr	Asp	Val	Leu	Ile	Leu	Pro	Glu	Glu	Val	Glu	Trp	Ile	Lys	Phe		
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Gly	Trp	Asp	Ser	Leu	Thr	Gly	Leu	Leu	Lys	Gly	Thr	His	Thr	Ala		
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Val	Ser	Ser	Asn	Asp	Arg	Ala	Ser	Leu	Ile	Asn	Asn	Ala	Phe	Gln		
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<211> 1587
 <212> DNA
 <213> Homo sapiens

<400> 354

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<210> 355

<211> 437

<212> PRT

<213> Homo sapiens

<400> 355

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His	Val	Trp	Lys	Val	Ser	Asp	Leu	Pro	Arg	Gln	Trp	Thr	Pro	Lys	35	40	45	
Asn	Thr	Ser	Cys	Asp	Ser	Gly	Leu	Gly	Cys	Gln	Asp	Thr	Leu	Met	50	55	60	
Leu	Ile	Glu	Ser	Gly	Pro	Gln	Val	Ser	Leu	Val	Leu	Ser	Lys	Gly	65	70	75	
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Gln	Glu	Asp	Phe	Cys	Asn	Asn	Leu	Val	Asn	Ser	Leu	Pro	Leu	Trp	110	115	120	
Ala	Pro	Gln	Pro	Pro	Ala	Asp	Pro	Gly	Ser	Leu	Arg	Cys	Pro	Val	125	130	135	
Cys	Leu	Ser	Met	Glu	Gly	Cys	Leu	Glu	Gly	Thr	Thr	Glu	Glu	Ile	140	145	150	
Cys	Pro	Lys	Gly	Thr	Thr	His	Cys	Tyr	Asp	Gly	Leu	Leu	Arg	Leu	155	160	165	
Arg	Gly	Gly	Gly	Ile	Phe	Ser	Asn	Leu	Arg	Val	Gln	Gly	Cys	Met	170	175	180	
Pro	Gln	Pro	Gly	Cys	Asn	Leu	Leu	Asn	Gly	Thr	Gln	Glu	Ile	Gly	185	190	195	
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 Ser Ala Ser Ser Ser Ser Val Leu Leu Asn Ser Leu Pro Pro Gln
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 Arg Gly Ala Thr His Cys Tyr Asp Gly Tyr Ile His Leu Ser Gly
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 Gly Gly Leu Ser Thr Lys Met Ser Ile Gln Gly Cys Val Ala Gln
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<210> 356

<211> 1238

<212> DNA

<213> Homo sapiens

<400> 356

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<211> 271

<212> PRT

<213> Homo sapiens

<400> 357

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Val	Gly	Pro	Thr	Gly 65	Glu	Lys	Gly	Asp	Met 70	Gly	Asp	Lys	Gly	Gln 75
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Lys	Gly	Glu	Lys	Gly 95	Asp	Ser	Gly	Asp	Ile 100	Gly	Pro	Pro	Gly	Pro 105
Asn	Gly	Glu	Pro	Gly 110	Leu	Pro	Cys	Glu	Cys 115	Ser	Gln	Leu	Arg	Lys 120
Ala	Ile	Gly	Glu	Met 125	Asp	Asn	Gln	Val	Ser 130	Gln	Leu	Thr	Ser	Glu 135
Leu	Lys	Phe	Ile	Lys 140	Asn	Ala	Val	Ala	Gly 145	Val	Arg	Glu	Thr	Glu 150
Ser	Lys	Ile	Tyr	Leu 155	Leu	Val	Lys	Glu	Glu 160	Lys	Arg	Tyr	Ala	Asp 165
Ala	Gln	Leu	Ser	Cys 170	Gln	Gly	Arg	Gly	Gly 175	Thr	Leu	Ser	Met	Pro 180
Lys	Asp	Glu	Ala	Ala 185	Asn	Gly	Leu	Met	Ala 190	Ala	Tyr	Leu	Ala	Gln 195
Ala	Gly	Leu	Ala	Arg 200	Val	Phe	Ile	Gly	Ile 205	Asn	Asp	Leu	Glu	Lys 210
Glu	Gly	Ala	Phe	Val 215	Tyr	Ser	Asp	His	Ser 220	Pro	Met	Arg	Thr	Phe 225
Asn	Lys	Trp	Arg	Ser 230	Gly	Glu	Pro	Asn	Asn 235	Ala	Tyr	Asp	Glu	Glu 240
Asp	Cys	Val	Glu	Met 245	Val	Ala	Ser	Gly	Gly 250	Trp	Asn	Asp	Val	Ala 255
Cys	His	Thr	Thr	Met 260	Tyr	Phe	Met	Cys	Glu 265	Phe	Asp	Lys	Glu	Asn 270

Met

<400> 358
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102202302450

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gttccttgat cctgccagac caccagccc ccggcacaga gctgctccac 150
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tagctcagag ctttggggct gtctgtaagg agccacagga ggaggtggtt 250
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<210> 359
<211> 135
<212> PRT
<213> Homo sapiens

<400> 359
Met Arg Ile Met Leu Leu Phe Thr Ala Ile Leu Ala Phe Ser Leu
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Ala Gln Ser Phe Gly Ala Val Cys Lys Glu Pro Gln Glu Glu Val
20 25 30
Val Pro Gly Gly Gly Arg Ser Lys Arg Asp Pro Asp Leu Tyr Gln
35 40 45
Leu Leu Gln Arg Leu Phe Lys Ser His Ser Ser Leu Glu Gly Leu
50 55 60
Leu Lys Ala Leu Ser Gln Ala Ser Thr Asp Pro Lys Glu Ser Thr
65 70 75

Ser Pro Glu Lys Arg Asp Met His Asp Phe Phe Val Gly Leu Met
80 85 90

Gly Lys Arg Ser Val Gln Pro Glu Gly Lys Thr Gly Pro Phe Leu
95 100 105

Pro Ser Val Arg Val Pro Arg Pro Leu His Pro Asn Gln Leu Gly
110 115 120

Ser Thr Gly Lys Ser Ser Leu Gly Thr Glu Glu Gln Arg Pro Leu
125 130 135

<210> 360
<211> 1738
<212> DNA
<213> Homo sapiens

<400> 360
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gcctgctgtg cccgcgctgt cgccgctgct accgcgtctg ctggacgcgg 100

gagacgccag cgagctgggtg attggagccc tgcggagagc tcaagcggcc 150

agctctgccc caggagccca ggctgccccg tgagtcccat agttgctgca 200

ggagtggagc catgagctgc gtcctgggtg gtgtcatccc cttggggctg 250

ctgttctctg tctgcggatc ccaaggctac ctctgcccc accgtactct 300

cttagaggag ctgctcagca aataccagca caacgagtct cactcccggg 350

tccgcagagc catccccagg gaggacaagg aggagatcct catgctgcac 400

aacaagcttc ggggccaggt gcagcctcag gcctccaaca tggagtacat 450

ggtgagcgcc ggctccggcc gcagaggctg gcaccggggg tggggcctgg 500

gccaccagcc tgctctgttc ccagccagc tctgttcccc agccagtgcg 550

tgtgatggct ggctcagggc ctctctggc aggggaggat cccggctctg 600

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accatggtgc ccagctagat tttaaatatt ttgtggagat gggggctctg 800

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cctcagcctc tcaaagtgtc aggattatag gcatgagtca ccctgtctgg 900

ctctggctct gttcttaaca ttctgccaaa acaacacacg tgggttcct 950

gtgcagagcc tgccctggtg ccttcatgtc actcttggtg gctccactgg 1000

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cacgtcccag	cctgggtaac	atggtaaagc	cccgtctcta	caaaaaaatc	1550
caagttagcc	gggcatggtg	gtgcgcacct	gtagtcccag	ctgcagtggg	1600
actgaggtgg	aggtggaggt	gggggggtgg	agctgaggaa	ggaggatcgc	1650
ttgagcctgg	gaagtcgagg	ctgcagtgag	ctgagattgc	accactgcac	1700
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<210> 361

<212> PRT

<213> Homo sapiens

<400> 361

Met Ser Cys Val Leu Gly Gly Val Ile Pro Leu Gly Leu Leu Phe
1 5 10 15

	110		115		120
Ser Ser Gly Arg Gly Gly Ser Arg Leu Cys Ser Val Leu Phe Val					
	125		130		135
Cys Phe Glu Thr Gly Ser His Ser Ala Thr Asp Ala Gly Val Gln					
	140		145		150
Trp His Asn Arg His Ala Leu Lys Pro					
	155				

<210> 362
 <211> 422
 <212> DNA
 <213> Homo sapiens

<400> 362
 aaggagagggc caccgggact tcagtgtctc ctccatccca ggagcgcagt 50
 ggccactatg gggctctgggc tgccccttgt cctcctcttg accctccttg 100
 gcagctcaca tggaacaggg ccgggtatga ctttgcaact gaagctgaag 150
 gagtcttttc tgacaaattc ctcctatgag tccagcttcc tggaattgct 200
 tgaaaagctc tgccctctcc tccatctccc ttcagggacc agcgtcacc 250
 tccaccatgc aagatctcaa caccatgttg tctgcaacac atgacagcca 300
 ttgaagcctg tgtccttctt ggcccgggct tttgggccgg ggatgcagga 350
 ggcaggcccc gaccctgtct ttcagcaggc cccaccctc ctgagtggca 400
 ataaataaaa ttcggtatgc tg 422

<210> 363
 <211> 78
 <212> PRT
 <213> Homo sapiens

<400> 363
 Met Gly Ser Gly Leu Pro Leu Val Leu Leu Leu Thr Leu Leu Gly
 1 5 10 15
 Ser Ser His Gly Thr Gly Pro Gly Met Thr Leu Gln Leu Lys Leu
 20 25 30
 Lys Glu Ser Phe Leu Thr Asn Ser Ser Tyr Glu Ser Ser Phe Leu
 35 40 45
 Glu Leu Leu Glu Lys Leu Cys Leu Leu Leu His Leu Pro Ser Gly
 50 55 60
 Thr Ser Val Thr Leu His His Ala Arg Ser Gln His His Val Val
 65 70 75
 Cys Asn Thr

<210> 364
 <211> 826
 <212> DNA
 <213> Homo sapiens

<400> 364
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 ctttctgagt ttcaaaaaca acagactagt actctaaaga actcttttaa 100
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 ttctgatgtg gggttcctcc actgtgttct gtgtgctatt aatatttacc 200
 attgcagaag cttcattcag tgttgaaaat gaatgcttag tggatctgtg 250
 cctcttacgc atatgttaca aattatctgg agttcctaata caatgcagag 300
 ttccccctcc ctccgattgt tctaaataat tgaaagatgt ctgctgtgga 350
 aaaaggcatg tattttaaatac tgtatgattc tcaaccatct ttagttggga 400
 aaggtccttg aaagccaatg gaaatacttt ttttttttct tggcactaat 450
 caagtgagtg ttaccttttc acttagtagg atgtgttggt acgctagtaa 500
 aatagaaaacc tgtgttttatt ctcaggtatt ttagaaacaa cagccatcat 550
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 gctatcaaat attacttcat tcaatataaa taacaatagt agaagttggt 650
 tacttagata tgctttctag ttgcattttc tcagcctatg taagactact 700
 ttgttgtaat agcctttgaa atttacagta ctgtctctct actatcttca 750
 gattacttga ttcaaataaa ccaattatgt ttgtaattga tattaataaa 800
 accagaataa aagttcatat ctaccc 826

<210> 365
 <211> 67
 <212> PRT
 <213> Homo sapiens

<400> 365
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 1 5 10 15
 Thr Val Phe Cys Val Leu Leu Ile Phe Thr Ile Ala Glu Ala Ser
 20 25 30
 Phe Ser Val Glu Asn Glu Cys Leu Val Asp Leu Cys Leu Leu Arg
 35 40 45
 Ile Cys Tyr Lys Leu Ser Gly Val Pro Asn Gln Cys Arg Val Pro
 50 55 60

SECRET

<211> 2475

<213> Homo sapiens

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tqagacatcc ttgagaagag ccacagcata agagactgcc ctgcttggtg 100

ttttgcagga tgatggtggc ccttcgagga gcttctgcat tgctgggttct 150

gttccttgca gctttttctgc ccccgccgca gtgtacccag gacccagcca 200

tqqtgcatta catctaccag cgcttttcgag tcttggagca agggctggaa 250

aaatgtaccc aagcaacqag qgcatacatt caagaattcc aagagttctc 300

aaaaaatata tctgtcatgc tgggaagatg tcagacctac acaagtgagt 350

acaagaqtgc agtgggtaac ttggcactga gagttgaacg tgcccaacgg 400

gagattgact acatacaata ccttcgagag gctgacgagt gcatcgtatc 450

agaggacaag acactggcag aaatgttgct ccaagaagct gaagaagaga 500

aaaagatccg qactctqctg aatqcaagct gtgacaacat gctgatgggc 550

ataaaqtctt tqaaaatagt gaagaagatg atggacacac atggctcttg 600

gatgaaagat gctgtctata actctccaaa ggtgtactta ttaattggat 650

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gataacacca agccagctcc ccggaagcaa atcctaacac tttcctggca 750

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caacttctaa tgagataatc aaatataacc tgcagaagag gactgtggaa 850

gatcgaatgc tgctcccagg aggggtaggc cgagcattgg tttaccagca 900

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ctgggcacta tcagtgagga ggacttgccc aacttgttct tccccaagag 1200

accaagaagt cactccatga tccattacaa ccccagagat aagcagctct 1250

atgcctggaa tgaaggaaac cagatcattt acaaactcca gacaaagaga 1300
aagctgcctc tgaagtaatg cattacagct gtgagaaaga gcactgtggc 1350
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ttttgtttta ctgctcccca gcatttactg taactctgcc atcttccctc 1650
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cattgcccac ggaagcatca aatacgtatg tttgttcacc tactcttata 2250
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gacactgagc aaaaaaaaaa aaaaa 2475

<210> 367

<211> 402

<212> PRT

<213> Homo sapiens

<400> 367

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Leu	Ala	Ala	Phe	Leu	Pro	Pro	Pro	Gln	Cys	Thr	Gln	Asp	Pro	Ala		20	25	30
Met	Val	His	Tyr	Ile	Tyr	Gln	Arg	Phe	Arg	Val	Leu	Glu	Gln	Gly		35	40	45
Leu	Glu	Lys	Cys	Thr	Gln	Ala	Thr	Arg	Ala	Tyr	Ile	Gln	Glu	Phe		50	55	60
Gln	Glu	Phe	Ser	Lys	Asn	Ile	Ser	Val	Met	Leu	Gly	Arg	Cys	Gln		65	70	75
Thr	Tyr	Thr	Ser	Glu	Tyr	Lys	Ser	Ala	Val	Gly	Asn	Leu	Ala	Leu		80	85	90
Arg	Val	Glu	Arg	Ala	Gln	Arg	Glu	Ile	Asp	Tyr	Ile	Gln	Tyr	Leu		95	100	105
Arg	Glu	Ala	Asp	Glu	Cys	Ile	Val	Ser	Glu	Asp	Lys	Thr	Leu	Ala		110	115	120
Glu	Met	Leu	Leu	Gln	Glu	Ala	Glu	Glu	Glu	Lys	Lys	Ile	Arg	Thr		125	130	135
Leu	Leu	Asn	Ala	Ser	Cys	Asp	Asn	Met	Leu	Met	Gly	Ile	Lys	Ser		140	145	150
Leu	Lys	Ile	Val	Lys	Lys	Met	Met	Asp	Thr	His	Gly	Ser	Trp	Met		155	160	165
Lys	Asp	Ala	Val	Tyr	Asn	Ser	Pro	Lys	Val	Tyr	Leu	Leu	Ile	Gly		170	175	180
Ser	Arg	Asn	Asn	Thr	Val	Trp	Glu	Phe	Ala	Asn	Ile	Arg	Ala	Phe		185	190	195
Met	Glu	Asp	Asn	Thr	Lys	Pro	Ala	Pro	Arg	Lys	Gln	Ile	Leu	Thr		200	205	210
Leu	Ser	Trp	Gln	Gly	Thr	Gly	Gln	Val	Ile	Tyr	Lys	Gly	Phe	Leu		215	220	225
Phe	Phe	His	Asn	Gln	Ala	Thr	Ser	Asn	Glu	Ile	Ile	Lys	Tyr	Asn		230	235	240
Leu	Gln	Lys	Arg	Thr	Val	Glu	Asp	Arg	Met	Leu	Leu	Pro	Gly	Gly		245	250	255
Val	Gly	Arg	Ala	Leu	Val	Tyr	Gln	His	Ser	Pro	Ser	Thr	Tyr	Ile		260	265	270
Asp	Leu	Ala	Val	Asp	Glu	His	Gly	Leu	Trp	Ala	Ile	His	Ser	Gly		275	280	285
Pro	Gly	Thr	His	Ser	His	Leu	Val	Leu	Thr	Lys	Ile	Glu	Pro	Gly		290	295	300
Thr	Leu	Gly	Val	Glu	His	Ser	Trp	Asp	Thr	Pro	Cys	Arg	Ser	Gln				

305	310	315
Asp Ala Glu Ala Ser Phe Leu Leu Cys Gly Val Leu Tyr Val Val		
320	325	330
Tyr Ser Thr Gly Gly Gln Gly Pro His Arg Ile Thr Cys Ile Tyr		
335	340	345
Asp Pro Leu Gly Thr Ile Ser Glu Glu Asp Leu Pro Asn Leu Phe		
350	355	360
Phe Pro Lys Arg Pro Arg Ser His Ser Met Ile His Tyr Asn Pro		
365	370	375
Arg Asp Lys Gln Leu Tyr Ala Trp Asn Glu Gly Asn Gln Ile Ile		
380	385	390
Tyr Lys Leu Gln Thr Lys Arg Lys Leu Pro Leu Lys		
395	400	

<210> 368
 <211> 2281
 <212> DNA
 <213> Homo sapiens

<400> 368
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 ctggccctga tggcgacggc ggcggtagcg cgggggtggc tgcgcgcggg 150
 ggaggagagg agcggccggc ccgcctgccaaaagcaaag ggatttccac 200
 ctgacaaaatc ttcggggatcc aagaagcaga aacaatatca gcggattcgg 250
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 tctgaagagc cacagcggga acatatcttg catggacttt agcagcaatg 350
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 tcgtctggct ggccaacggg gacaccctcc gtgtcttcaa gatgaccaag 550
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 ggtcaagtgc tgtctaccat caacaccaac cagatgaaca acacacacgc 750
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DELETED

aaaaaaaaa aaaaaaaaaa aaaaaaaaaa a 2281

<210> 369
<211> 447
<212> PRT
<213> Homo sapiens

<400> 369
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1 5 10 15
Leu Gly Leu Leu Ala Leu Met Ala Thr Ala Ala Val Ala Arg Gly
20 25 30
Trp Leu Arg Ala Gly Glu Glu Arg Ser Gly Arg Pro Ala Cys Gln
35 40 45
Lys Ala Asn Gly Phe Pro Pro Asp Lys Ser Ser Gly Ser Lys Lys
50 55 60
Gln Lys Gln Tyr Gln Arg Ile Arg Lys Glu Lys Pro Gln Gln His
65 70 75
Asn Phe Thr His Arg Leu Leu Ala Ala Ala Leu Lys Ser His Ser
80 85 90
Gly Asn Ile Ser Cys Met Asp Phe Ser Ser Asn Gly Lys Tyr Leu
95 100 105
Ala Thr Cys Ala Asp Asp Arg Thr Ile Arg Ile Trp Ser Thr Lys
110 115 120
Asp Phe Leu Gln Arg Glu His Arg Ser Met Arg Ala Asn Val Glu
125 130 135
Leu Asp His Ala Thr Leu Val Arg Phe Ser Pro Asp Cys Arg Ala
140 145 150
Phe Ile Val Trp Leu Ala Asn Gly Asp Thr Leu Arg Val Phe Lys
155 160 165
Met Thr Lys Arg Glu Asp Gly Gly Tyr Thr Phe Thr Ala Thr Pro
170 175 180
Glu Asp Phe Pro Lys Lys His Lys Ala Pro Val Ile Asp Ile Gly
185 190 195
Ile Ala Asn Thr Gly Lys Phe Ile Met Thr Ala Ser Ser Asp Thr
200 205 210
Thr Val Leu Ile Trp Ser Leu Lys Gly Gln Val Leu Ser Thr Ile
215 220 225
Asn Thr Asn Gln Met Asn Asn Thr His Ala Ala Val Ser Pro Cys
230 235 240
Gly Arg Phe Val Ala Ser Cys Gly Phe Thr Pro Asp Val Lys Val
245 250 255

Trp	Glu	Val	Cys	Phe	Gly	Lys	Lys	Gly	Glu	Phe	Gln	Glu	Val	Val	
				260					265					270	
Arg	Ala	Phe	Glu	Leu	Lys	Gly	His	Ser	Ala	Ala	Val	His	Ser	Phe	
				275					280					285	
Ala	Phe	Ser	Asn	Asp	Ser	Arg	Arg	Met	Ala	Ser	Val	Ser	Lys	Asp	
				290					295					300	
Gly	Thr	Trp	Lys	Leu	Trp	Asp	Thr	Asp	Val	Glu	Tyr	Lys	Lys	Lys	
				305					310					315	
Gln	Asp	Pro	Tyr	Leu	Leu	Lys	Thr	Gly	Arg	Phe	Glu	Glu	Ala	Ala	
				320					325					330	
Gly	Ala	Ala	Pro	Cys	Arg	Leu	Ala	Leu	Ser	Pro	Asn	Ala	Gln	Val	
				335					340					345	
Leu	Ala	Leu	Ala	Ser	Gly	Ser	Ser	Ile	His	Leu	Tyr	Asn	Thr	Arg	
				350					355					360	
Arg	Gly	Glu	Lys	Glu	Glu	Cys	Phe	Glu	Arg	Val	His	Gly	Glu	Cys	
				365					370					375	
Ile	Ala	Asn	Leu	Ser	Phe	Asp	Ile	Thr	Gly	Arg	Phe	Leu	Ala	Ser	
				380					385					390	
Cys	Gly	Asp	Arg	Ala	Val	Arg	Leu	Phe	His	Asn	Thr	Pro	Gly	His	
				395					400					405	
Arg	Ala	Met	Val	Glu	Glu	Met	Gln	Gly	His	Leu	Lys	Arg	Ala	Ser	
				410					415					420	
Asn	Glu	Ser	Thr	Arg	Gln	Arg	Leu	Gln	Gln	Gln	Leu	Thr	Gln	Ala	
				425					430					435	
Gln	Glu	Thr	Leu	Lys	Ser	Leu	Gly	Ala	Leu	Lys	Lys				
				440					445						

<210> 370

<211> 1415

<212> DNA

<213> Homo sapiens

<400> 370

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<211> 105

<213> Homo sapiens

Met Arg Gly Ala Thr Arg Val Ser Ile Met Leu Leu Leu Val Thr
1 5 10 15

Val Ser Asp Cys Ala Val Ile Thr Gly Ala Cys Glu Arg Asp Val
20 25 30

Gln Cys Gly Ala Gly Thr Cys Cys Ala Ile Ser Leu Trp Leu Arg
35 40 45

Gly	Leu	Arg	Met	Cys	Thr	Pro	Leu	Gly	Arg	Glu	Gly	Glu	Glu	Cys
				50					55					60
His	Pro	Gly	Ser	His	Lys	Val	Pro	Phe	Phe	Arg	Lys	Arg	Lys	His
				65					70					75
His	Thr	Cys	Pro	Cys	Leu	Pro	Asn	Leu	Leu	Cys	Ser	Arg	Phe	Pro
				80					85					90
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<211> 1281

<212> DNA

<213> Homo sapiens

<400> 372

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<213> Homo sapiens

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<210> 378

<212> DNA

<400> 378

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<211> 919

<212> PRT

<213> Homo sapiens

<400> 379

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				20					25					30
Phe	Glu	Asp	Ile	Val	Ile	Val	Ile	Asp	Pro	Ser	Val	Pro	Glu	Asp
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Glu	Lys	Ile	Ile	Glu	Gln	Ile	Glu	Asp	Met	Val	Thr	Thr	Ala	Ser
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Thr	Tyr	Leu	Phe	Glu	Ala	Thr	Glu	Lys	Arg	Phe	Phe	Phe	Lys	Asn	65	70	75
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Lys	Arg	Pro	Lys	His	Glu	Asn	His	Lys	His	Ala	Asp	Val	Ile	Val	95	100	105
Ala	Pro	Pro	Thr	Leu	Pro	Gly	Arg	Asp	Glu	Pro	Tyr	Thr	Lys	Gln	110	115	120
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Lys	Leu	Phe	Val	His	Glu	Trp	Ala	His	Leu	Arg	Trp	Gly	Val	Phe	155	160	165
Asp	Glu	Tyr	Asn	Glu	Asp	Gln	Pro	Phe	Tyr	Arg	Ala	Lys	Ser	Lys	170	175	180
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Phe	Pro	Asp	Lys	Val	Gln	Thr	Glu	Lys	Ala	Ser	Ile	Met	Phe	Met	230	235	240
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Lys	His	Phe	Leu	Leu	Gln	Thr	Val	Glu	Asn	Gly	Ser	Trp	Val	Gly	335	340	345
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Lys	Val	Ser	Asn	Ile	Ala	Gln	Val	Thr	Leu	Phe	Ile	Pro	Gln	Ala	860	865	870
Asn	Pro	Asp	Asp	Ile	Asp	Pro	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Pro	875	880	885
Thr	Pro	Asp	Lys	Ser	His	Asn	Ser	Gly	Val	Asn	Ile	Ser	Thr	Leu	890	895	900
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<210> 380

Dedicated to You

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<212> PRT

<213> Homo sapiens

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35 40 45

SECRET

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Gln	Pro	Gly	Lys	Lys 380	Val	Phe	Tyr	Pro	Val 385	Leu	Phe	Ser	Gln	Tyr 390
Asn	Pro	Gly	Ile	Ile 395	Tyr	Gly	His	His	Asp 400	Ala	Val	Pro	Pro	Leu 405
Glu	Gln	Gln	Leu	Val 410	Ile	Lys	Lys	Glu	Thr 415	Gly	Phe	Trp	Arg	Asp 420
Phe	Gly	Phe	Gly	Met 425	Thr	Cys	Gln	Tyr	Arg 430	Ser	Asp	Phe	Ile	Asn 435
Ile	Gly	Gly	Phe	Asp 440	Leu	Asp	Ile	Lys	Gly 445	Trp	Gly	Gly	Glu	Asp 450
Val	His	Leu	Tyr	Arg 455	Lys	Tyr	Leu	His	Ser 460	Asn	Leu	Ile	Val	Val 465
Arg	Thr	Pro	Val	Arg 470	Gly	Leu	Phe	His	Leu 475	Trp	His	Glu	Lys	Arg 480
Cys	Met	Asp	Glu	Leu 485	Thr	Pro	Glu	Gln	Tyr 490	Lys	Met	Cys	Met	Gln 495
Ser	Lys	Ala	Met	Asn 500	Glu	Ala	Ser	His	Gly 505	Gln	Leu	Gly	Met	Leu 510
Val	Phe	Arg	His	Glu 515	Ile	Glu	Ala	His	Leu 520	Arg	Lys	Gln	Lys	Gln 525
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<210> 383
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[illegible]

<211> 212

<213> Homo sapiens

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Val Pro Asn Arg Glu Ala Thr Glu Ile Ser His Val Leu Leu Cys
65 70 75

Ser Lys Asn His Thr Leu Pro Ala Val Glu Val Gln Ser Ala Ile
95 100 105

Arg Met Asn Lys Asn Arg Ile Asn Asn Ala Phe Phe Leu Asn Asp
110 115 120

Gln Thr Leu Glu Phe Leu Lys Ile Pro Ser Thr Leu Ala Pro Pro
125 130 135

Met Asp Pro Ser Val Pro Ile Trp Ile Ile Ile Phe Gly Val Ile
140 145 150

Phe Cys Ile Ile Ile Val Ala Ile Ala Leu Leu Ile Leu Ser Gly
155 160 165

Ile Trp Gln Arg Arg Arg Lys Asn Lys Glu Pro Ser Glu Val Asp
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Asp Ala Glu Asp Lys Cys Glu Asn Met Ile Thr Ile Glu Asn Gly
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Pro Ser

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acactgtacg cttctctgag atccacttcc tggctctggc cattggctct 600
gcctgtgcac tgatgatcat aatagtaatt gtagtgggtc tcttccagca 650
ttaccggaaa aagcgatggg ccgaaagagc tcataaagtg gtggagataa 700
aatcaaaaga agaggaaagg ctcaaccaag agaaaaaggt ctctgtttat 750
ttagaagaca cagactaaca atttttagatg gaagctgaga tgatttccaa 800

gaacaagaac cctagtatatt cttgaagtta atggaaactt ttctttggct 850
 tttccagttg tgacccgttt tccaaccagt tctgcagcat attagattct 900
 agacaagcaa caccctctg gagccagcac agtgctcctc catatcacca 950
 gtcatacaca gcctcattat taaggcttta tttaatttca gagtgtaaat 1000
 tttttcaagt gctcattagg ttttataaac aagaagctac atttttgccc 1050
 ttaagacact acttacagtg ttatgacttg tatacacata tattgggtatc 1100
 aaaggggata aaagccaatt tgtctgttac atttcctttc acgtatttct 1150
 tttagcagca cttctgctac taaagttaat gtgtttactc tctttccttc 1200
 ccacattctc aattaaaagg tgagctaagc ctctcggtg tttctgatta 1250
 acagtaaact ctaaattcaa actgttaaact gacattttta tttttatgtc 1300
 tctccttaac tatgagacac atcttgtttt actgaatttc tttcaatatt 1350
 ccaggtgata gatttttgtc g 1371

<210> 389

<211> 215

<212> PRT

<213> Homo sapiens

<400> 389

Met	Tyr	Gly	Lys	Ser	Ser	Thr	Arg	Ala	Val	Leu	Leu	Leu	Leu	Gly
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Ile	Gln	Leu	Thr	Ala	Leu	Trp	Pro	Ile	Ala	Ala	Val	Glu	Ile	Tyr
				20					25					30
Thr	Ser	Arg	Val	Leu	Glu	Ala	Val	Asn	Gly	Thr	Asp	Ala	Arg	Leu
				35					40					45
Lys	Cys	Thr	Phe	Ser	Ser	Phe	Ala	Pro	Val	Gly	Asp	Ala	Leu	Thr
				50					55					60
Val	Thr	Trp	Asn	Phe	Arg	Pro	Leu	Asp	Gly	Gly	Pro	Glu	Gln	Phe
				65					70					75
Val	Phe	Tyr	Tyr	His	Ile	Asp	Pro	Phe	Gln	Pro	Met	Ser	Gly	Arg
				80					85					90
Phe	Lys	Asp	Arg	Val	Ser	Trp	Asp	Gly	Asn	Pro	Glu	Arg	Tyr	Asp
				95					100					105
Ala	Ser	Ile	Leu	Leu	Trp	Lys	Leu	Gln	Phe	Asp	Asp	Asn	Gly	Thr
				110					115					120
Tyr	Thr	Cys	Gln	Val	Lys	Asn	Pro	Pro	Asp	Val	Asp	Gly	Val	Ile
				125					130					135
Gly	Glu	Ile	Arg	Leu	Ser	Val	Val	His	Thr	Val	Arg	Phe	Ser	Glu

	140		145		150
Ile His Phe Leu Ala Leu Ala Ile Gly Ser Ala Cys Ala Leu Met					
	155		160		165
Ile Ile Ile Val Ile Val Val Val Leu Phe Gln His Tyr Arg Lys					
	170		175		180
Lys Arg Trp Ala Glu Arg Ala His Lys Val Val Glu Ile Lys Ser					
	185		190		195
Lys Glu Glu Glu Arg Leu Asn Gln Glu Lys Lys Val Ser Val Tyr					
	200		205		210
Leu Glu Asp Thr Asp					
	215				

<210> 390
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 390
 ccgaggccat ctagaggcca gagc 24

<210> 391
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 391
 acaggcagag ccaatggcca gagc 24

<210> 392
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 392
 gagaggactg cgggagtttg ggacctttgt gcagacgtgc tcatg 45

<210> 393
 <211> 471
 <212> DNA
 <213> Homo sapiens

<400> 393
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T03280-264650

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atccgacaac agctgctcca gctgacacgt atccagctac tggtcctgct 150
gatgatgaag cccctgatgc tgaaaccact gctgctgcaa ccactgcgac 200
cactgctgct cctaccactg caaccaccgc tgcttctacc actgctcgta 250
aagacattcc agttttaccc aaatggggtg gggatctccc gaatggtaga 300
gtgtgtccct gagatggaat cagcttgagt cttctgcaat tggtcacaac 350
tattcatgct tcctgtgatt tcatccaact acttaccttg cctacgatat 400
cccccttatc tctaatacgt ttattttctt tcaaataaaa aataactatg 450
agcaacataa aaaaaaaaaa a 471

<210> 394

<211> 90

<212> PRT

<213> Homo sapiens

<400> 394

Met	Lys	Phe	Leu	Ala	Val	Leu	Val	Leu	Leu	Gly	Val	Ser	Ile	Phe
1				5					10					15

Leu	Val	Ser	Ala	Gln	Asn	Pro	Thr	Thr	Ala	Ala	Pro	Ala	Asp	Thr
				20					25					30

Tyr	Pro	Ala	Thr	Gly	Pro	Ala	Asp	Asp	Glu	Ala	Pro	Asp	Ala	Glu
				35					40					45

Thr	Thr	Ala	Ala	Ala	Thr	Thr	Ala	Thr	Thr	Ala	Ala	Pro	Thr	Thr
				50					55					60

Ala	Thr	Thr	Ala	Ala	Ser	Thr	Thr	Ala	Arg	Lys	Asp	Ile	Pro	Val
				65					70					75

Leu	Pro	Lys	Trp	Val	Gly	Asp	Leu	Pro	Asn	Gly	Arg	Val	Cys	Pro
				80					85					90

<210> 395

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 395

gctccctgat cttcatgtca ccacc 25

<210> 396

<211> 26

<212> DNA

<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 396
caggacaca ctctaccatt cgggag 26

<210> 397
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 397
ccatctttct ggtctctgcc cagaatccga caacagctgc tc 42

<210> 398
<211> 907
<212> DNA
<213> Homo sapiens

<400> 398
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gggcaggacc ccatagggga atgctacctc ctgcccttcc acctgccctg 150
gtgttcacgg tggcctggtc cctccttgcc gagagagtgt cctgggtcag 200
ggacgcagag gacgctcaca gactccagcc ctttggtacc gagaggacac 250
ttggcaaggt ccagcgatgg tccggagtcc acacacagac tggcggcagg 300
gcaggagggg gacagttctg ttgtgcttgg ttggacagta agaggggtctt 350
ggccagtcca gggtaggggg cggaactc cataaagaac cagaggggtct 400
gggccccggc cacagagtca tctgcccagc tcctctgctg ctggccagtg 450
ggagtggcac gaggtggggc tttgtgccag taaaaccaca ggctggattt 500
gcctgcgggc catggtcctt gtctagggca gcaattctca accttcttgc 550
tctcaggacc ccaaagagct ttcattgtat ctattgattt ttaccacatt 600
agcaattaaa actgagaaat gggccgggca cggtaggtca cgcctgtaat 650
cccagcactt tgggaggccg aggcgggtgg atcacctgag atcaggagtt 700
caagaccagc ctggccaaca tggtgaaacc ttgtctacta aaaatacaaa 750
aaattagcca ggcacagtgg tgtgcactgg tagtcccagt tactcgggag 800
gctgaggcag gaaaatcgct tgaaccagc aggcggacgt tgcggtgagc 850
cgagatcgcg ccgctgattc cagcctgggc gacaagagtg agactccatc 900

SECRET

$\langle 211 \rangle$ 120

<213> Hom

Met Leu Pro Pro Ala Leu Pro Pro Ala Leu Val Phe Thr Val Ala
1 5 10 15

Trp Ser Leu Leu Ala Glu Arg Val Ser Trp Val Arg Asp Ala Glu
20 25 30

Asp Ala His Arg Leu Gln Pro Phe Val Thr Glu Arg Thr Leu Gly
35 40 45

Lys Val Gln Arg Trp Ser Gly Val His Thr Gln Thr Gly Gly Arg
50 55 60

Ala Gly Gly Gly Gln Phe Cys Cys Ala Trp Leu Asp Ser Lys Arg
65 70 75

Val Leu Ala Ser Pro Gly Trp Gly Ala Ala Asn Ser Ile Lys Asn
80 85 90

Gln Arg Val Trp Ala Pro Ala Thr Glu Ser Ser Ala Gln Leu Leu
95 100 105

Cys Cys Trp Pro Val Gly Val Ala Arg Gly Gly Ala Leu Cys Gln
110 115 120

$\langle 210 \rangle$ 400

<211> 893

<212> DNA

<213> Homo sapiens

<400> 400

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aggagctgac cctgctcttc catgggaccc tgcagctggg ccaggccctc 150

aacggtgtgt acagqaccac ggagggacgg ctgacaaagg ccaggaacag 200

cctgggtctc tatggccgca caatagaact cctgggggcag gaggtcagcc 250

qqqcccqqga tgcagcccag gaacttcggg caagcctggt ggagactcag 300

atggaaggagg atattctgca gctgcaggca gaggccacag ctgaggtgct 350

qggggaggtg qcccaggcac agaaggtgct acgggacagc gtgcagcggc 400

taqaagtcca gctgaggagc gcctggctgg gccctgccta ccgagaattt 450

gaggtcttaa aggctcacgc tgacaagcag agccacatcc tatgggcccct 500

[illegible]

<211> 198

<213> Home

Met Pro Val Pro Ala Leu Cys Leu Leu Trp Ala Leu Ala Met Val
1 5 10 15

Thr Arg Pro Ala Ser Ala Ala Pro Met Gly Gly Pro Glu Leu Ala
20 25 30

Gln His Glu Glu Leu Thr Leu Leu Phe His Gly Thr Leu Gln Leu
35 40 45

Gly Gln Ala Leu Asn Gly Val Tyr Arg Thr Thr Glu Gly Arg Leu
50 55 60

Thr Lys Ala Arg Asn Ser Leu Gly Leu Tyr Gly Arg Thr Ile Glu
65 70 75

Leu Leu Gly Gln Glu Val Ser Arg Gly Arg Asp Ala Ala Gln Glu
80 85 90

Leu Arg Ala Ser Leu Leu Glu Thr Gln Met Glu Glu Asp Ile Leu
95 100 105

Gln Leu Gln Ala Glu Ala Thr Ala Glu Val Leu Gly Glu Val Ala
110 115 120

Gln Ala Gln Lys Val Leu Arg Asp Ser Val Gln Arg Leu Glu Val
125 130 135

Gln Leu Arg Ser Ala Trp Leu Gly Pro Ala Tyr Arg Glu Phe Glu
140 145 150

Val Leu Lys Ala His Ala Asp Lys Gln Ser His Ile Leu Trp Ala
155 160 165

Leu Thr Gly His Val Gln Arg Gln Arg Arg Glu Met Val Ala Gln
170 175 180

Gln His Arg Leu Arg Gln Ile Gln Glu Arg Leu His Thr Ala Ala
 185 190 195

Leu Pro Ala

<210> 402
 <211> 1915
 <212> DNA
 <213> Homo sapiens

<400> 402
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 tgtaatttgc atcctggtga tcaccttact cctggaccag accaccagcc 100
 acacatccag attaaaagcc aggaagcaca gcaaacgtcg agtgagagac 150
 aaggatggag atctgaagac tcaaattgaa aagctctgga cagaagtcaa 200
 tgccttgaag gaaattcaag ccctgcagac agtctgtctc cgaggcacta 250
 aagttcacia gaaatgctac cttgcttcag aaggtttgaa gcatttccat 300
 gaggccaatg aagactgcat ttccaaagga ggaatcctgg ttatccccag 350
 gaactccgac gaaatcaacg ccctccaaga ctatggtaaa aggagcctgc 400
 cagggtgtcaa tgacttttgg ctgggcatca atgacatggc cacggaaggc 450
 aagtttggtg acgtcaacgg aatcgctatc tccttcctca actgggaccg 500
 tgcacagcct aacgggtggca agcgagaaaa ctgtgtcctg ttctcccaat 550
 cagctcaggg caagtggagt gatgaggcct gtcgcagcag caagagatac 600
 atatgcgagt tcaccatccc taaataggtc tttctccaat gtgtcctcca 650
 agcaagattc atcataactt ataggttcat gatctctaag atcaagtaaa 700
 aatcataatt tttacttatt aaaaaattgc aacacaagat caatgtccat 750
 agcaatatga tagcatcagc caattttgct aacacatttc tttgggattt 800
 tgcccttcct ggggtatagg ggatcagaaa tattgatcca tgtgcacgca 850
 gataaaatgg cttctgctaa acagactaaa atctttctct ctagtctttc 900
 tcacttgtag aaaccagtt tgttttcaaa aaatcacagt agcaatgcaa 950
 ctcatcactc tagaaaagca agcttaggct acctgaaaga ttttcccttg 1000
 gaagtttagc gtatgtttga ctaacaaaaa ttccctacat cagagactct 1050
 aggtgctata taatccaaaa acttttcagc ctgttgctca ttctgtccca 1100
 tgctggcaat aataccttgt cagcccatta cccttatatt gaattgctcc 1150

atctcctggt	gggacttgta	tcttgtctgc	catatcagaa	cacaaacccc	1200
tgaagagggt	ctgatttgat	tttttttttt	tcttcatgcc	tacctttttt	1250
ttggaagttt	ccagccgcaa	tttgaaatga	aatgacaagg	tgtatatattg	1300
atcaattttc	attcccacca	ttgcattaca	acctctaact	taaatgggta	1350
accctaaggc	atatcaaaga	agcagattgc	atgataaacg	gaaatagaaa	1400
aaaagaacct	acatttat	tgcttttagca	tccttactct	caccttttat	1450
gagattgaga	gtggacttac	atttcctttt	ttacattttc	gtatatattat	1500
tttttttagc	catcattata	tgtttaagtc	tattatgggc	aaccaatctt	1550
tggaagctga	aaactgaatt	taaagaatgc	tatcttggaa	aattgcatac	1600
gtctgtgcaa	ttttttattc	tgcttagtgc	tattctgctt	gtttaactag	1650
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tgaggggaaa	tgggcttttt	agaagcaa	aattttaaat	atattttgtt	1750
cttcaaataa	atagtgttta	aacattgaat	gtgttttgtg	aacaatatcc	1800
cactttgcaa	actttaacta	cacatgcttg	gaattaagtt	ttagctgttt	1850
tcattgctca	ataataaagc	ctgaattctg	atcaataaaa	aaaaaaaaaa	1900
aaaaaaaaaa	aaaaa				1915

<210> 403

<212> PRT

Met Ala Gln Gln Ala Cys Pro Arg Ala Met Ala Lys Asn Gly Leu
1 5 10 15

Ser	Lys	Gly	Gly	Ile	Leu	Val	Ile	Pro	Arg	Asn	Ser	Asp	Glu	Ile
				110					115					120
Asn	Ala	Leu	Gln	Asp	Tyr	Gly	Lys	Arg	Ser	Leu	Pro	Gly	Val	Asn
				125					130					135
Asp	Phe	Trp	Leu	Gly	Ile	Asn	Asp	Met	Val	Thr	Glu	Gly	Lys	Phe
				140					145					150
Val	Asp	Val	Asn	Gly	Ile	Ala	Ile	Ser	Phe	Leu	Asn	Trp	Asp	Arg
				155					160					165
Ala	Gln	Pro	Asn	Gly	Gly	Lys	Arg	Glu	Asn	Cys	Val	Leu	Phe	Ser
				170					175					180
Gln	Ser	Ala	Gln	Gly	Lys	Trp	Ser	Asp	Glu	Ala	Cys	Arg	Ser	Ser
				185					190					195
Lys	Arg	Tyr	Ile	Cys	Glu	Phe	Thr	Ile	Pro	Lys				
				200					205					

<210> 404

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 404

cctggttatc cccaggaact ccgac 25

<210> 405

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 405

ctcttgctgc tgcgacaggc ctc 23

<210> 406

<211> 46

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 406

cgccctccaa gactatggta aaaggagcct gccaggtgtc aatgac 46

<210> 407

<211> 570

<212> DNA

<213> Homo sapiens

<400> 407
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ttccccgcgc gccccgagcc cccgcgccat gaagctcgcc gccctcctgg 100
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tcggccaagc ctgtggccca gcctgtcgct gcgctggagt cggcggcgga 200
ggccggggcc gggaccctgg ccaaccccct cggcaccctc aaccgcgtga 250
agctcctgct gagcagcctg ggcacccccg tgaaccacct catagagggc 300
tcccagaagt gtgtggctga gctgggtccc caggccgtgg gggccgtgaa 350
ggccctgaag gccctgctgg gggccctgac agtgtttggc tgagccgaga 400
ctggagcatc tacacctgag gacaagacgc tgcccacccg cgaggggtga 450
aaaccccgcc gcggggagga ccgtccatcc ccttcccccg gccctctca 500
ataaacgtgg ttaagagcaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 550
aaaaaaaaaa aaaaaaaaaa 570

<210> 408
<211> 104
<212> PRT
<213> Homo sapiens

<400> 408
Met Lys Leu Ala Ala Leu Leu Gly Leu Cys Val Ala Leu Ser Cys
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Ser Ser Ala Ala Ala Phe Leu Val Gly Ser Ala Lys Pro Val Ala
20 25 30
Gln Pro Val Ala Ala Leu Glu Ser Ala Ala Glu Ala Gly Ala Gly
35 40 45
Thr Leu Ala Asn Pro Leu Gly Thr Leu Asn Pro Leu Lys Leu Leu
50 55 60
Leu Ser Ser Leu Gly Ile Pro Val Asn His Leu Ile Glu Gly Ser
65 70 75
Gln Lys Cys Val Ala Glu Leu Gly Pro Gln Ala Val Gly Ala Val
80 85 90
Lys Ala Leu Lys Ala Leu Leu Gly Ala Leu Thr Val Phe Gly
95 100

<210> 409
<211> 2089
<212> DNA
<213> Homo sapiens

<400> 409

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agtctcctgc tctccgtcct cctggcacag gtgtggctgg taccggctt 150
ggccccagc cctcagtcgc cagagacccc agccccctcag aaccagacca 200
gcagggtagt gcaggctccc agggaggaag aggaagatga gcaggaggcc 250
agcgaggaga aggccggtga ggaagagaaa gcctggctga tggccagcag 300
gcagcagctt gccaaggaga cttcaaactt cggattcagc ctgctgcgaa 350
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tccttggcca tgacaggctt gatgctgggg gccacagggc cgactgaaac 450
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ggctcctgcc ttccctcttt aagggactca gagagaccct ctcccgaac 550
ctggaactgg gcctctcaca ggggagtttt gccttcatcc acaaggattt 600
tgatgtcaaa gagactttct tcaatttatc caagaggtat ttgatacag 650
agtgcgtgcc tatgaatttt cgcaatgcct cacaggccaa aaggctcatg 700
aatcattaca ttaacaaaga gactcggggg aaaattccca aactgtttga 750
tgagattaat cctgaaacca aattaattct tgtggattac atcttgttca 800
aagggaaatg gttgaccca tttgacctg tcttcaccga agtcgacact 850
ttccacctgg acaagtacaa gaccattaag gtgcccata tgtacggtgc 900
aggcaagttt gcctccacct ttgacaagaa ttttcgttgt catgtcctca 950
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atgggtgacc acctcgccct tgaagactac ctgaccacag acttggtgga 1050
gacatggctc agaaacatga aaaccagaaa catggaagt ttctttccga 1100
agttcaagct agatcagaag tatgagatgc atgagctgct taggcagatg 1150
ggaatcagaa gaatcttctc accctttgct gaccttagtg aactctcagc 1200
tactggaaga aatctccaag tatccagggt tttacgaaga acagtgattg 1250
aagttgatga aaggggcact gaggcagtgg caggaatctt gtcagaaatt 1300
actgcttatt ccatgcctcc tgtcatcaaa gtggaccggc catttcattt 1350
catgatctat gaagaaacct ctggaatgct tctgtttctg ggcagggtgg 1400
tgaatccgac tctcctataa ttcaggacat gcataagcac ttcgtgctgt 1450

agtagatgct gaatctgagg tatcaaacac acacaggata ccagcaatgg 1500
atggcagggg agagtgttcc ttttgttctt aactagttta ggggtgttctc 1550
aaataaatac agtagtcccc acttatctga gggggatata ttcaaagacc 1600
cccagcagat gcctgaaacg gtggacagtg ctgaacctta tatatatattt 1650
ttcctacaca tacataccta tgataaagtt taattttataa attaggcaca 1700
gtaagagatt aacaataata acaacattaa gtaaaatgag ttacttgaac 1750
gcaagcactg caataccata acagtcaaac tgattataga gaaggctact 1800
aagtgactca tgggcgagga gcatagacag tgtggagaca ttgggcaagg 1850
ggagaattca catcctgggt gggacagagc aggacgatgc aagattccat 1900
cccactactc agaatggcat gctgcttaag acttttagat tgttttatttc 1950
tggaattttt catttaatgt ttttggacca tggttgacca tggttaactg 2000
agactgcaga aagcaaaacc atggataagg gaggactact acaaaagcat 2050
taaattgata catattttttt aaaaaaaaaa aaaaaaaaaa 2089

<210> 410
<211> 444
<212> PRT
<213> Homo sapiens

<400> 410
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1 5 10 15
Val Trp Leu Val Pro Gly Leu Ala Pro Ser Pro Gln Ser Pro Glu
20 25 30
Thr Pro Ala Pro Gln Asn Gln Thr Ser Arg Val Val Gln Ala Pro
35 40 45
Arg Glu Glu Glu Glu Asp Glu Gln Glu Ala Ser Glu Glu Lys Ala
50 55 60
Gly Glu Glu Glu Lys Ala Trp Leu Met Ala Ser Arg Gln Gln Leu
65 70 75
Ala Lys Glu Thr Ser Asn Phe Gly Phe Ser Leu Leu Arg Lys Ile
80 85 90
Ser Met Arg His Asp Gly Asn Met Val Phe Ser Pro Phe Gly Met
95 100 105
Ser Leu Ala Met Thr Gly Leu Met Leu Gly Ala Thr Gly Pro Thr
110 115 120
Glu Thr Gln Ile Lys Arg Gly Leu His Leu Gln Ala Leu Lys Pro
125 130 135

DEPT. OF THE ARMY

425

430

435

Gly Arg Val Val Asn Pro Thr Leu Leu
440

<210> 411

<211> 636

<212> DNA

<213> Homo sapiens

<400> 411

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tgtgggaggc aggtgcagtc ccagcaccca aggtccctat caagatgcaa 150
gtcaaacact ggccctcaga gcaggaccca gagaaggcct ggggcgcccg 200
tgtggtggag cctccggaga aggacgacca gctggtggtg ctgttcctg 250
tccagaagcc gaaactcttg accaccgagg agaagccacg aggtcagggc 300
aggggccccca tccttcagg caccaaggcc tggatggaga ccgaggacac 350
cctggggccgt gtcctgagtc ccgagcccga ccatgacagc ctgtaccacc 400
ctccgcctga ggaggaccag ggcgaggaga ggccccggtt gtgggtgatg 450
ccaaatcacc aggtgctcct gggaccggag gaagaccaag accacatcta 500
ccacccccag taggggtcca ggggccatca ctgccccgc cctgtcccaa 550
ggcccaggct gttgggactg ggaccctccc taccctgccc cagctagaca 600
aataaacccc agcaggcaaa aaaaaaaaaa aaaaaa 636

<210> 412

<211> 151

<212> PRT

<213> Homo sapiens

<400> 412

Met	Arg	Arg	Leu	Leu	Leu	Val	Thr	Ser	Leu	Val	Val	Val	Leu	Leu
1				5					10				15	
Trp	Glu	Ala	Gly	Ala	Val	Pro	Ala	Pro	Lys	Val	Pro	Ile	Lys	Met
				20					25				30	
Gln	Val	Lys	His	Trp	Pro	Ser	Glu	Gln	Asp	Pro	Glu	Lys	Ala	Trp
				35					40				45	
Gly	Ala	Arg	Val	Val	Glu	Pro	Pro	Glu	Lys	Asp	Asp	Gln	Leu	Val
				50					55				60	
Val	Leu	Phe	Pro	Val	Gln	Lys	Pro	Lys	Leu	Leu	Thr	Thr	Glu	Glu
				65					70				75	

Lys	Pro	Arg	Gly	Gln	Gly	Arg	Gly	Pro	Ile	Leu	Pro	Gly	Thr	Lys
				80					85					90
Ala	Trp	Met	Glu	Thr	Glu	Asp	Thr	Leu	Gly	Arg	Val	Leu	Ser	Pro
				95					100					105
Glu	Pro	Asp	His	Asp	Ser	Leu	Tyr	His	Pro	Pro	Pro	Glu	Glu	Asp
				110					115					120
Gln	Gly	Glu	Glu	Arg	Pro	Arg	Leu	Trp	Val	Met	Pro	Asn	His	Gln
				125					130					135
Val	Leu	Leu	Gly	Pro	Glu	Glu	Asp	Gln	Asp	His	Ile	Tyr	His	Pro
				140					145					150

Gln

<210> 413
 <211> 1176
 <212> DNA
 <213> Homo sapiens

<400> 413
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 aggagctctc tgtaccaag gaaagtgcag ctgagactca gacaagatta 100
 caatgaacca actcagcttc ctgctgtttc tcatagcgac caccagagga 150
 tggagtacag atgaggctaa tacttacttc aaggaatgga cctgttcttc 200
 gtctccatct ctgcccagaa gctgcaagga aatcaaagac gaatgtccta 250
 gtgcatttga tggcctgtat tttctccgca ctgagaatgg tggtatctac 300
 cagaccttct gtgacatgac ctctgggggt ggcggtgga cctgggtggc 350
 cagcgtgcat gagaatgaca tgcgtgggaa gtgcacggtg ggcatcgct 400
 ggtccagtca gcagggcagc aaagcagact acccagaggg ggacggcaac 450
 tgggccaact acaacacctt tggatctgca gaggcggcca cgagcgatga 500
 ctacaagaac cctggctact acgacatcca ggccaaggac ctgggcatct 550
 ggcacgtgcc caataagtcc cccatgcagc actggagaaa cagctccctg 600
 ctgaggtacc gcacggacac tggcttcttc cagacactgg gacataatct 650
 gtttggcatc taccagaaat atccagtga atatggagaa ggaaagtgtt 700
 ggactgacaa cggcccgtg atccctgtgg tctatgattt tggcgacgcc 750
 cagaaaacag catcttatta ctcaccctat ggccagcggg aattcactgc 800
 gggatttgtt cagttcaggg tatttaataa cgagagagca gccaacgcct 850

06-07-98

<211> 313

<213> Homo sapiens

Met Asn Gln Leu Ser Phe Leu Leu Phe Leu Ile Ala Thr Thr Arg
1 5 10 15

Gly Trp Ser Thr Asp Glu Ala Asn Thr Tyr Phe Lys Glu Trp Thr
20 25 30

Cys Ser Ser Ser Pro Ser Leu Pro Arg Ser Cys Lys Glu Ile Lys
35 40 45

Asp Glu Cys Pro Ser Ala Phe Asp Gly Leu Tyr Phe Leu Arg Thr
50 55 60

Glu Asn Gly Val Ile Tyr Gln Thr Phe Cys Asp Met Thr Ser Gly
65 70 75

Gly Gly Gly Trp Thr Leu Val Ala Ser Val His Glu Asn Asp Met
80 85 90

Arg Gly Lys Cys Thr Val Gly Asp Arg Trp Ser Ser Gln Gln Gly
95 100 105

Ser Lys Ala Asp Tyr Pro Glu Gly Asp Gly Asn Trp Ala Asn Tyr
110 115 120

Asn Thr Phe Gly Ser Ala Glu Ala Ala Thr Ser Asp Asp Tyr Lys
125 130 135

Asn Pro Gly Tyr Tyr Asp Ile Gln Ala Lys Asp Leu Gly Ile Trp
140 145 150

His Val Pro Asn Lys Ser Pro Met Gln His Trp Arg Asn Ser Ser
155 160 165

Leu Leu Arg Tyr Arg Thr Asp Thr Gly Phe Leu Gln Thr Leu Gly
170 175 180

His Asn Leu Phe Gly Ile Tyr Gln Lys Tyr Pro Val Lys Tyr Gly
185 190 195

Glu	Gly	Lys	Cys	Trp	Thr	Asp	Asn	Gly	Pro	Val	Ile	Pro	Val	Val	200	205	210
Tyr	Asp	Phe	Gly	Asp	Ala	Gln	Lys	Thr	Ala	Ser	Tyr	Tyr	Ser	Pro	215	220	225
Tyr	Gly	Gln	Arg	Glu	Phe	Thr	Ala	Gly	Phe	Val	Gln	Phe	Arg	Val	230	235	240
Phe	Asn	Asn	Glu	Arg	Ala	Ala	Asn	Ala	Leu	Cys	Ala	Gly	Met	Arg	245	250	255
Val	Thr	Gly	Cys	Asn	Thr	Glu	His	His	Cys	Ile	Gly	Gly	Gly	Gly	260	265	270
Tyr	Phe	Pro	Glu	Ala	Ser	Pro	Gln	Gln	Cys	Gly	Asp	Phe	Ser	Gly	275	280	285
Phe	Asp	Trp	Ser	Gly	Tyr	Gly	Thr	His	Val	Gly	Tyr	Ser	Ser	Ser	290	295	300
Arg	Glu	Ile	Thr	Glu	Ala	Ala	Val	Leu	Leu	Phe	Tyr	Arg			305	310	

<210> 415
 <211> 1281
 <212> DNA
 <213> Homo sapiens

<400> 415
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 eggctgggag ccacagaggc tgccgcatcc tgccctcgga acaatgggac 100
 tcggcgcgcg aggtgcttgg gccgcgctgc tcctggggac gctgcaggtg 150
 ctagecgtgc tggggggccgc ccatgaaagc gcagccatgg cggcatctgc 200
 aaacatagag aattctgggc ttccacacaa ctccagtgtt aactcaacag 250
 agactctcca acatgtgcct tctgaccata caaatgaaac ttccaacagt 300
 actgtgaaac caccaacttc agttgcctca gactccagta atacaacggt 350
 caccaccatg aaacctacag cggcatctaa tacaacaaca ccagggatgg 400
 tctcaacaaa tatgacttct accaccttaa agtctacacc caaaacaaca 450
 agtggtttcac agaacacatc tcagatatca acatccacaa tgaccgtaac 500
 ccacaatagt tcagtgcacat ctgctgcttc atcagtaaca atcacaacaa 550
 ctatgcattc tgaagcaaag aaaggatcaa aatttgatac tgggagcttt 600
 gttggtggta ttgtattaac gctgggagtt ttatctattc ttacattgg 650
 atgcaaaatg tattactcaa gaagaggcat tcggtatcga accatagatg 700

aacatgatgc catcatttaa ggaaatccat ggaccaagga tggaatacag 750
 attgatgctg ccctatcaat taattttggt ttattaatag tttaaaacaa 800
 tattctcttt ttgaaaatag tataaacagg ccatgcatat aatgtacagt 850
 gtattacgta aatatgtaaa gattcttcaa ggtaacaagg gtttgggttt 900
 tgaaataaac atctggatct tatagaccgt tcatacaatg gtttttagcaa 950
 gttcatagta agacaaacaa gtcctatctt ttttttttgg ctgggggtggg 1000
 ggcattggtc acatatgacc agtaattgaa agacgtcatc actgaaagac 1050
 agaatgccat ctgggcatac aaataagaag tttgtcacag cactcaggat 1100
 tttgggtatc ttttgtagct cacataaaga acttcagtgc ttttcagagc 1150
 tggatatatc ttaattacta atgccacaca gaaattatac aatcaaacta 1200
 gatctgaagc ataatttaag aaaaacatca acattttttg tgctttaaac 1250
 tgtagtagtt ggtctagaaa caaaatactc c 1281

<210> 416
 <211> 208
 <212> PRT
 <213> Homo sapiens

<400> 416
 Met Gly Leu Gly Ala Arg Gly Ala Trp Ala Ala Leu Leu Leu Gly
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 Thr Leu Gln Val Leu Ala Leu Leu Gly Ala Ala His Glu Ser Ala
 20 25 30
 Ala Met Ala Ala Ser Ala Asn Ile Glu Asn Ser Gly Leu Pro His
 35 40 45
 Asn Ser Ser Ala Asn Ser Thr Glu Thr Leu Gln His Val Pro Ser
 50 55 60
 Asp His Thr Asn Glu Thr Ser Asn Ser Thr Val Lys Pro Pro Thr
 65 70 75
 Ser Val Ala Ser Asp Ser Ser Asn Thr Thr Val Thr Thr Met Lys
 80 85 90
 Pro Thr Ala Ala Ser Asn Thr Thr Thr Pro Gly Met Val Ser Thr
 95 100 105
 Asn Met Thr Ser Thr Thr Leu Lys Ser Thr Pro Lys Thr Thr Ser
 110 115 120
 Val Ser Gln Asn Thr Ser Gln Ile Ser Thr Ser Thr Met Thr Val
 125 130 135
 Thr His Asn Ser Ser Val Thr Ser Ala Ala Ser Ser Val Thr Ile

SECRET

<400>	417				
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gccgggagcc	ggtcgcgggg	gctccgggct	gtgggaccgc	tgggccccca	100
gcgatggcga	ccctgtgggg	aggccttctt	cggcttggct	ccttgctcag	150
cctgtcgtgc	ctggcgcttt	ccgtgctgct	gctggcgag	ctgtcagacg	200
ccgccaagaa	tttcgaggat	gtcagatgta	aatgtatctg	ccctccctat	250
aaagaaaatt	ctgggcatat	ttataataag	aacatatctc	agaaagattg	300
tgattgcctt	catgtttgtg	agcccatgcc	tgtgcggggg	cctgatgtag	350
aagcatactg	tctacgctgt	gaatgcaa	atgaagaa	aagctctgtc	400
acaatcaagg	ttaccattat	aatttatctc	tccattttgg	gccttctact	450
tctgtacatg	gtatatctta	ctctggttga	gcccatactg	aagaggcgcc	500
tctttggaca	tgcacagt	atacagagt	atgatgatat	tggggatcac	550
cagccttttg	caaatgcaca	cgatgtgcta	gcccgcctcc	gcagtcgagc	600
caacgtgctg	aacaaggtag	aatatgcaca	gcagcgctgg	aagcttcaag	650
tccaagagca	gcgaaagtct	gtctttgacc	ggcatgttgt	cctcagctaa	700
ttgggaattg	aattcaagg	gactagaa	aaacaggcag	acaactggaa	750
agaactgact	gggttttgct	gggtttcatt	ttaatacctt	gttgatttca	800
ccaactgttg	ctggaagatt	caaaactgga	agcaaaaact	tgcttgattt	850
ttttttcttg	ttaacgta	aatagagaca	tttttaaa	cacacagctc	900
aaagtcagcc	aataagtctt	ttcctatttg	tgacttttac	taataaaaa	950

SECRET

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<400> 419
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gccttcctgt cccgcgggaa gcggcaggag ccgccgccga cacctgaagg 150
aaaattgggc cgatttccac ctatgatgca tcatcaccag gcaccctcag 200
atggccagac tcctggggct cgtttccaga ggtctcacct tgccgaggca 250
tttgcaaagg ccaaaggatc aggtggaggt gctggaggag gaggtagtgg 300
aagaggctctg atggggcaga ttattccaat ctacggtttt gggatttttt 350
tatatatact gtacattcta ttaaggtaa gtagaatcat cctaatacata 400
ttacatcaat gaaaatctaa tatggcgata aaaatcattg tctacattaa 450
aacttcttat agttcataaa attatttcaa atccatcatc tctttaaatc 500
ctgcctcttc ttcatgaggt acttaggata gccattattt cagtttcaca 550
taagaatgtt tactcaatgt ttaagtgtt tgcccaaaa ttcacaacta 600
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<210> 420
<211> 128
<212> PRT
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SECRET

[illegible]

<211> 1630

<213> Homo sapiens

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aactcatcct	gctgccagtg	ttactggatt	attccttggg	cctgaatgac	150
ttgaatgttt	ccccgcctga	gctaacagtc	catgtgggtg	attcagctct	200
gatgggatgt	gttttccaga	gcacagaaga	caaatgtata	ttcaagatag	250
actggactct	gtcaccagga	gagcacgcca	aggacgaata	tgtgctatac	300
tattactcca	atctcagtgt	gcctattggg	cgcttccaga	accgcgtaca	350
cttgatgggg	gacatcttat	gcaatgatgg	ctctctcctg	ctccaagatg	400
tgcaagaggc	tgaccagga	acctatatct	gtgaaatccg	cctcaaaggg	450
gagagccagg	tgttcaagaa	ggcggtggtg	ctgcatgtgc	ttccagagga	500
gcccaaagag	ctcatgggtc	atgtgggtgg	attgattcag	atgggatgtg	550

ttttccagag cacagaagtg aaacacgtga ccaaggtaga atggatattt 600
 tcaggacggc gcgcaaagga ggagattgta tttcgttact accacaaact 650
 caggatgtct gtggagtact cccagagctg gggccacttc cagaatcgtg 700
 tgaacctggt gggggacatt ttccgcaatg acggttccat catgcttcaa 750
 ggagtgaggg agtcagatgg aggaaactac acctgcagta tccacctagg 800
 gaacctggtg ttcaagaaaa ccattgtgct gcatgtcagc ccggaagagc 850
 ctccaact ggtgaccccg gcagccctga ggcctctggt cttgggtggt 900
 aatcagttgg tgatcattgt gggaattgtc tgtgccacaa tctgtctgct 950
 ccctgttctg atattgatcg tgaagaagac ctgtggaaat aagagttcag 1000
 tgaattctac agtcttggtg aagaacacga agaagactaa tccagagata 1050
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 ctccccaata attgtacggg aggtgatcga ggaagaagaa ccaagtgaaa 1150
 aatcagaggc cacctacatg accatgcacc cagtttggcc ttctctgagg 1200
 tcagatcgga acaactcact tgaaaaaaag tcagggtgggg gaatgccaaa 1250
 aacacagcaa gccttttgag aagaatggag agtcccttca tctcagcagc 1300
 ggtggagact ctctcctgtg tgtgtcctgg gccactctac cagtgatttc 1350
 agactcccg cctcccagct gtctcctgt ctctattgtt ggtcaataca 1400
 ctgaagatgg agaatttgga gcctggcaga gagactggac agctctggag 1450
 gaacaggcct gctgagggga ggggagcatg gacttggcct ctggagtggg 1500
 aactggccc tggaaccag gctgagctga gtggcctcaa acccccgtt 1550
 ggatcagacc ctctgtggg cagggttctt agtggatgag ttactgggaa 1600
 gaatcagaga taaaaaccaa cccaaatcaa 1630

<210> 422

<211> 394

<212> PRT

<213> Homo sapiens

<400> 422

Met	Phe	Cys	Pro	Leu	Lys	Leu	Ile	Leu	Leu	Pro	Val	Leu	Leu	Asp
1				5				10						15

Tyr	Ser	Leu	Gly	Leu	Asn	Asp	Leu	Asn	Val	Ser	Pro	Pro	Glu	Leu
				20					25					30

Thr	Val	His	Val	Gly	Asp	Ser	Ala	Leu	Met	Gly	Cys	Val	Phe	Gln
				35					40					45

Ser	Thr	Glu	Asp	Lys	Cys	Ile	Phe	Lys	Ile	Asp	Trp	Thr	Leu	Ser		50	55	60
Pro	Gly	Glu	His	Ala	Lys	Asp	Glu	Tyr	Val	Leu	Tyr	Tyr	Tyr	Ser		65	70	75
Asn	Leu	Ser	Val	Pro	Ile	Gly	Arg	Phe	Gln	Asn	Arg	Val	His	Leu		80	85	90
Met	Gly	Asp	Ile	Leu	Cys	Asn	Asp	Gly	Ser	Leu	Leu	Leu	Gln	Asp		95	100	105
Val	Gln	Glu	Ala	Asp	Gln	Gly	Thr	Tyr	Ile	Cys	Glu	Ile	Arg	Leu		110	115	120
Lys	Gly	Glu	Ser	Gln	Val	Phe	Lys	Lys	Ala	Val	Val	Leu	His	Val		125	130	135
Leu	Pro	Glu	Glu	Pro	Lys	Glu	Leu	Met	Val	His	Val	Gly	Gly	Leu		140	145	150
Ile	Gln	Met	Gly	Cys	Val	Phe	Gln	Ser	Thr	Glu	Val	Lys	His	Val		155	160	165
Thr	Lys	Val	Glu	Trp	Ile	Phe	Ser	Gly	Arg	Arg	Ala	Lys	Glu	Glu		170	175	180
Ile	Val	Phe	Arg	Tyr	Tyr	His	Lys	Leu	Arg	Met	Ser	Val	Glu	Tyr		185	190	195
Ser	Gln	Ser	Trp	Gly	His	Phe	Gln	Asn	Arg	Val	Asn	Leu	Val	Gly		200	205	210
Asp	Ile	Phe	Arg	Asn	Asp	Gly	Ser	Ile	Met	Leu	Gln	Gly	Val	Arg		215	220	225
Glu	Ser	Asp	Gly	Gly	Asn	Tyr	Thr	Cys	Ser	Ile	His	Leu	Gly	Asn		230	235	240
Leu	Val	Phe	Lys	Lys	Thr	Ile	Val	Leu	His	Val	Ser	Pro	Glu	Glu		245	250	255
Pro	Arg	Thr	Leu	Val	Thr	Pro	Ala	Ala	Leu	Arg	Pro	Leu	Val	Leu		260	265	270
Gly	Gly	Asn	Gln	Leu	Val	Ile	Ile	Val	Gly	Ile	Val	Cys	Ala	Thr		275	280	285
Ile	Leu	Leu	Leu	Pro	Val	Leu	Ile	Leu	Ile	Val	Lys	Lys	Thr	Cys		290	295	300
Gly	Asn	Lys	Ser	Ser	Val	Asn	Ser	Thr	Val	Leu	Val	Lys	Asn	Thr		305	310	315
Lys	Lys	Thr	Asn	Pro	Glu	Ile	Lys	Glu	Lys	Pro	Cys	His	Phe	Glu		320	325	330
Arg	Cys	Glu	Gly	Glu	Lys	His	Ile	Tyr	Ser	Pro	Ile	Ile	Val	Arg				

	335		340		345
Glu Val Ile Glu Glu Glu Glu Pro Ser	Glu Lys Ser Glu Ala Thr				
350	355	360			
Tyr Met Thr Met His Pro Val Trp Pro	Ser Leu Arg Ser Asp Arg				
365	370	375			
Asn Asn Ser Leu Glu Lys Lys Ser Gly	Gly Gly Met Pro Lys Thr				
380	385	390			
Gln Gln Ala Phe					

<210> 423
 <211> 963
 <212> DNA
 <213> Homo sapiens

<400> 423
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 ctctgagctc agttgcagta ctcggaagc catgcaggat gaagatggat 200
 acatcacctt aaatattaaa actcggaaac cagctctcgt ctccgttggc 250
 cctgcatcct cctcctggtg gcgtgtgatg gctttgattc tgctgaccc 300
 gtgcgtgggg atggttgcg ggctggtggc tctggggatt tggctctgtca 350
 tgcagcgcaa ttacctaca gatgagaatg aaaatcgac aggaactctg 400
 caacaattag caaagcgctt ctgtcaatat gtggtaaaac aatcagaact 450
 aaagggcact ttcaaaggc ataaatgcag ccctgtgac acaaactgga 500
 gatattatgg agatagctgc tatgggttct tcaggcaca cttaacatgg 550
 gaagagagta agcagtactg cactgacatg aatgctactc tcctgaagat 600
 tgacaaccgg aacattgtgg agtacatcaa agccaggact catttaattc 650
 gttgggtcgg attatctcgc cagaagtcga atgaggtctg gaagtgggag 700
 gatggctcgg ttatctcaga aaatatgttt gagtttttgg aagatggaaa 750
 aggaaatatg aattgtgctt attttcataa tgggaaaatg caccctacct 800
 tctgtgagaa caaacattat ttaatgtgtg agaggaaggc tggcatgacc 850
 aaggtggacc aactacctta atgcaaagag gtggacagga taacacagat 900
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aaaaaaaaaa aaa 963

<210> 424

<211> 229

<212> PRT

<213> Homo sapiens

<400> 424

Met	Gln	Asp	Glu	Asp	Gly	Tyr	Ile	Thr	Leu	Asn	Ile	Lys	Thr	Arg
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Lys	Pro	Ala	Leu	Val	Ser	Val	Gly	Pro	Ala	Ser	Ser	Ser	Trp	Trp
				20					25					30

Arg	Val	Met	Ala	Leu	Ile	Leu	Leu	Ile	Leu	Cys	Val	Gly	Met	Val
				35					40					45

Val	Gly	Leu	Val	Ala	Leu	Gly	Ile	Trp	Ser	Val	Met	Gln	Arg	Asn
				50					55					60

Tyr	Leu	Gln	Asp	Glu	Asn	Glu	Asn	Arg	Thr	Gly	Thr	Leu	Gln	Gln
				65					70					75

Leu	Ala	Lys	Arg	Phe	Cys	Gln	Tyr	Val	Val	Lys	Gln	Ser	Glu	Leu
				80					85					90

Lys	Gly	Thr	Phe	Lys	Gly	His	Lys	Cys	Ser	Pro	Cys	Asp	Thr	Asn
				95					100					105

Trp	Arg	Tyr	Tyr	Gly	Asp	Ser	Cys	Tyr	Gly	Phe	Phe	Arg	His	Asn
				110					115					120

Leu	Thr	Trp	Glu	Glu	Ser	Lys	Gln	Tyr	Cys	Thr	Asp	Met	Asn	Ala
				125					130					135

Thr	Leu	Leu	Lys	Ile	Asp	Asn	Arg	Asn	Ile	Val	Glu	Tyr	Ile	Lys
				140					145					150

Ala	Arg	Thr	His	Leu	Ile	Arg	Trp	Val	Gly	Leu	Ser	Arg	Gln	Lys
				155					160					165

Ser	Asn	Glu	Val	Trp	Lys	Trp	Glu	Asp	Gly	Ser	Val	Ile	Ser	Glu
				170					175					180

Asn	Met	Phe	Glu	Phe	Leu	Glu	Asp	Gly	Lys	Gly	Asn	Met	Asn	Cys
				185					190					195

Ala	Tyr	Phe	His	Asn	Gly	Lys	Met	His	Pro	Thr	Phe	Cys	Glu	Asn
				200					205					210

Lys	His	Tyr	Leu	Met	Cys	Glu	Arg	Lys	Ala	Gly	Met	Thr	Lys	Val
				215					220					225

Asp Gln Leu Pro

<210> 425

<211> 24

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 425
tgacagcccct gtgacacaaa ctgg 24

<210> 426
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 426
ctgagataac cgagccatcc tcccac 26

<210> 427
<211> 49
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 427
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<210> 428
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 428
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<210> 429
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 429
gactgccctc cctgccca 17

<210> 430
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 430
 caaaaagcct ggaagtcttc aaag 24

<210> 431
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 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 431
 cagctggact gcaggtgcta 20

<210> 432
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 432
 cagtgagcac agcaagtgtc ct 22

<210> 433
 <211> 28
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 433
 ggccacctcc ttgagtcttc agttccct 28

<210> 434
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 434
 caactactgg ctaaagctgg tgaa 24

<210> 435
 <211> 27
 <212> DNA
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 Asp Arg Gly Pro Glu Pro Gln Leu Lys Gly Ile Val Thr Lys Leu
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 Arg Ser Gly Arg Ala Trp Tyr Leu Gly Leu Asp Lys Glu Gly Gln
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 Val Met Lys Gly Asn Arg Val Lys Lys Thr Lys Ala Ala Ala His
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Questions & Answers

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Ser	Lys	Ser	Thr	Ser	Ala	Ser	Ala	Ile	Met	Asn	Gly	Gly	Lys	Pro	230	235	240
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485	490			495
Gln Ser Thr Arg Ser Thr Glu Lys Thr	Phe Thr Ile Pro Val Thr			
500	505			510
Asp Ile Asn Ser Gly Ile Pro Gly Ile	Asp Glu Val Met Lys Thr			
515	520			525
Thr Lys Ile Ile Ile Gly Cys Phe Val	Ala Ile Thr Leu Met Ala			
530	535			540
Ala Val Met Leu Val Ile Phe Tyr Lys	Met Arg Lys Gln His His			
545	550			555
Arg Gln Asn His His Ala Pro Thr Arg	Thr Val Glu Ile Ile Asn			
560	565			570
Val Asp Asp Glu Ile Thr Gly Asp Thr	Pro Met Glu Ser His Leu			
575	580			585
Pro Met Pro Ala Ile Glu His Glu His	Leu Asn His Tyr Asn Ser			
590	595			600
Tyr Lys Ser Pro Phe Asn His Thr Thr	Thr Val Asn Thr Ile Asn			
605	610			615
Ser Ile His Ser Ser Val His Glu Pro	Leu Leu Ile Arg Met Asn			
620	625			630
Ser Lys Asp Asn Val Gln Glu Thr Gln	Ile			
635	640			

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<210> 503

<211> 373

<212> PRT

<213> Homo Sapien

<400> 503

Met	Ser	Leu	Leu	Leu	Leu	Leu	Leu	Val	Ser	Tyr	Tyr	Val	Gly
1				5				10					15

Thr Leu Gly Thr His Thr Glu Ile Lys Arg Val Ala Glu Glu Lys

	20	25	30
Val Thr Leu Pro Cys His His Gln Leu Gly Leu Pro Glu Lys Asp	35	40	45
Thr Leu Asp Ile Glu Trp Leu Leu Thr Asp Asn Glu Gly Asn Gln	50	55	60
Lys Val Val Ile Thr Tyr Ser Ser Arg His Val Tyr Asn Asn Leu	65	70	75
Thr Glu Glu Gln Lys Gly Arg Val Ala Phe Ala Ser Asn Phe Leu	80	85	90
Ala Gly Asp Ala Ser Leu Gln Ile Glu Pro Leu Lys Pro Ser Asp	95	100	105
Glu Gly Arg Tyr Thr Cys Lys Val Lys Asn Ser Gly Arg Tyr Val	110	115	120
Trp Ser His Val Ile Leu Lys Val Leu Val Arg Pro Ser Lys Pro	125	130	135
Lys Cys Glu Leu Glu Gly Glu Leu Thr Glu Gly Ser Asp Leu Thr	140	145	150
Leu Gln Cys Glu Ser Ser Ser Gly Thr Glu Pro Ile Val Tyr Tyr	155	160	165
Trp Gln Arg Ile Arg Glu Lys Glu Gly Glu Asp Glu Arg Leu Pro	170	175	180
Pro Lys Ser Arg Ile Asp Tyr Asn His Pro Gly Arg Val Leu Leu	185	190	195
Gln Asn Leu Thr Met Ser Tyr Ser Gly Leu Tyr Gln Cys Thr Ala	200	205	210
Gly Asn Glu Ala Gly Lys Glu Ser Cys Val Val Arg Val Thr Val	215	220	225
Gln Tyr Val Gln Ser Ile Gly Met Val Ala Gly Ala Val Thr Gly	230	235	240
Ile Val Ala Gly Ala Leu Leu Ile Phe Leu Leu Val Trp Leu Leu	245	250	255
Ile Arg Arg Lys Asp Lys Glu Arg Tyr Glu Glu Glu Glu Arg Pro	260	265	270
Asn Glu Ile Arg Glu Asp Ala Glu Ala Pro Lys Ala Arg Leu Val	275	280	285
Lys Pro Ser Ser Ser Ser Ser Gly Ser Arg Ser Ser Arg Ser Gly	290	295	300
Ser Ser Ser Thr Arg Ser Thr Ala Asn Ser Ala Ser Arg Ser Gln	305	310	315

SECRET

<400> 504					
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ccattatagg	aactttgctt	gctctagcgc	tcattgggtc	tatcatcttt	850
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cgatatcagg	gaagatgtgc	cacctccaaa	gagccgtacg	tccactgcc	950
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C O N T E N T S

Val	Val	Leu	Val	Lys 140	Pro	Ser	Gly	Ala	Arg 145	Cys	Tyr	Val	Asp	Gly 150
Ser	Glu	Glu	Ile	Gly 155	Ser	Asp	Phe	Lys	Ile 160	Lys	Cys	Glu	Pro	Lys 165
Glu	Gly	Ser	Leu	Pro 170	Leu	Gln	Tyr	Glu	Trp 175	Gln	Lys	Leu	Ser	Asp 180
Ser	Gln	Lys	Met	Pro 185	Thr	Ser	Trp	Leu	Ala 190	Glu	Met	Thr	Ser	Ser 195
Val	Ile	Ser	Val	Lys 200	Asn	Ala	Ser	Ser	Glu 205	Tyr	Ser	Gly	Thr	Tyr 210
Ser	Cys	Thr	Val	Arg 215	Asn	Arg	Val	Gly	Ser 220	Asp	Gln	Cys	Leu	Leu 225
Arg	Leu	Asn	Val	Val 230	Pro	Pro	Ser	Asn	Lys 235	Ala	Gly	Leu	Ile	Ala 240
Gly	Ala	Ile	Ile	Gly 245	Thr	Leu	Leu	Ala	Leu 250	Ala	Leu	Ile	Gly	Leu 255
Ile	Ile	Phe	Cys	Cys 260	Arg	Lys	Lys	Arg	Arg 265	Glu	Glu	Lys	Tyr	Glu 270
Lys	Glu	Val	His	His 275	Asp	Ile	Arg	Glu	Asp 280	Val	Pro	Pro	Pro	Lys 285
Ser	Arg	Thr	Ser	Thr 290	Ala	Arg	Ser	Tyr	Ile 295	Gly	Ser	Asn	His	Ser 300
Ser	Leu	Gly	Ser	Met 305	Ser	Pro	Ser	Asn	Met 310	Glu	Gly	Tyr	Ser	Lys 315
Thr	Gln	Tyr	Asn	Gln 320	Val	Pro	Ser	Glu	Asp 325	Phe	Glu	Arg	Thr	Pro 330
Gln	Ser	Pro	Thr	Leu 335	Pro	Pro	Ala	Lys	Phe 340	Lys	Tyr	Pro	Tyr	Lys 345
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<210> 506
<211> 1705
<212> DNA
<213> Homo Sapien
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 cccttgctg ggttttacc tgccttctctg gagccaggta tcagggggccc 400
 agggccaaga attccacttt gggccctgcc aagtgaaggg ggttgttccc 450
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 ggataacatc acgagtgtcc ggctgctgca gcaggagggt ctgcagaacg 550
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<210> 507

<211> 206

<212> PRT

<213> Homo Sapien

<400> 507

Met	Asn	Phe	Gln	Gln	Arg	Leu	Gln	Ser	Leu	Trp	Thr	Leu	Ala	Arg	
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Pro	Phe	Cys	Pro	Pro	Leu	Leu	Ala	Thr	Ala	Ser	Gln	Met	Gln	Met	
				20					25					30	
Val	Val	Leu	Pro	Cys	Leu	Gly	Phe	Thr	Leu	Leu	Leu	Trp	Ser	Gln	
				35					40					45	
Val	Ser	Gly	Ala	Gln	Gly	Gln	Glu	Phe	His	Phe	Gly	Pro	Cys	Gln	
				50					55					60	
Val	Lys	Gly	Val	Val	Pro	Gln	Lys	Leu	Trp	Glu	Ala	Phe	Trp	Ala	
				65					70					75	
Val	Lys	Asp	Thr	Met	Gln	Ala	Gln	Asp	Asn	Ile	Thr	Ser	Ala	Arg	
				80					85					90	
Leu	Leu	Gln	Gln	Glu	Val	Leu	Gln	Asn	Val	Ser	Asp	Ala	Glu	Ser	
				95					100					105	
Cys	Tyr	Leu	Val	His	Thr	Leu	Leu	Glu	Phe	Tyr	Leu	Lys	Thr	Val	
				110					115					120	
Phe	Lys	Asn	His	His	Asn	Arg	Thr	Val	Glu	Val	Arg	Thr	Leu	Lys	
				125					130					135	
Ser	Phe	Ser	Thr	Leu	Ala	Asn	Asn	Phe	Val	Leu	Ile	Val	Ser	Gln	
				140					145					150	
Leu	Gln	Pro	Ser	Gln	Glu	Asn	Glu	Met	Phe	Ser	Ile	Arg	Asp	Ser	
				155					160					165	
Ala	His	Arg	Arg	Phe	Leu	Leu	Phe	Arg	Arg	Ala	Phe	Lys	Gln	Leu	
				170					175					180	
Asp	Val	Glu	Ala	Ala	Leu	Thr	Lys	Ala	Leu	Gly	Glu	Val	Asp	Ile	
				185					190					195	
Leu	Leu	Thr	Trp	Met	Gln	Lys	Phe	Tyr	Lys	Leu					
				200					205						

<210> 508

<211> 924

<212> DNA

<213> Homo Sapien

<400> 508

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<210> 509

<211> 177

<212> PRT

<213> Homo Sapien

<400> 509

Met	Lys	Leu	Gln	Cys	Val	Ser	Leu	Trp	Leu	Leu	Gly	Thr	Ile	Leu
1				5					10					15
Ile	Leu	Cys	Ser	Val	Asp	Asn	His	Gly	Leu	Arg	Arg	Cys	Leu	Ile
				20					25					30
Ser	Thr	Asp	Met	His	His	Ile	Glu	Glu	Ser	Phe	Gln	Glu	Ile	Lys
				35					40					45
Arg	Ala	Ile	Gln	Ala	Lys	Asp	Thr	Phe	Pro	Asn	Val	Thr	Ile	Leu
				50					55					60
Ser	Thr	Leu	Glu	Thr	Leu	Gln	Ile	Ile	Lys	Pro	Leu	Asp	Val	Cys
				65					70					75

Cys	Val	Thr	Lys	Asn	Leu	Leu	Ala	Phe	Tyr	Val	Asp	Arg	Val	Phe	
				80					85					90	
Lys	Asp	His	Gln	Glu	Pro	Asn	Pro	Lys	Ile	Leu	Arg	Lys	Ile	Ser	
				95					100					105	
Ser	Ile	Ala	Asn	Ser	Phe	Leu	Tyr	Met	Gln	Lys	Thr	Leu	Arg	Gln	
				110					115					120	
Cys	Gln	Glu	Gln	Arg	Gln	Cys	His	Cys	Arg	Gln	Glu	Ala	Thr	Asn	
				125					130					135	
Ala	Thr	Arg	Val	Ile	His	Asp	Asn	Tyr	Asp	Gln	Leu	Glu	Val	His	
				140					145					150	
Ala	Ala	Ala	Ile	Lys	Ser	Leu	Gly	Glu	Leu	Asp	Val	Phe	Leu	Ala	
				155					160					165	
Trp	Ile	Asn	Lys	Asn	His	Glu	Val	Met	Phe	Ser	Ala				
				170					175						

<210> 510
 <211> 996
 <212> DNA
 <213> Homo Sapien

<400> 510
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Val Val Arg Gly Gly Arg Val Asn Thr His Ala Gly Gly Thr Gly
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Pro Glu Gly Cys Arg Pro Phe Ala Lys Phe Ile
245 250

<210> 512
<211> 2015
<212> DNA
<213> Homo Sapien

<400> 512
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<210> 513

<211> 482

<212> PRT

<213> Homo Sapien

<400> 513

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Trp	Glu	Val	Gly	Val	Ser	Gly	Ser	Ser	Ala	Gly	Pro	Ser	Thr	Arg
				20					25					30
Arg	Ala	Asp	Thr	Ala	Met	Thr	Thr	Asp	Asp	Thr	Glu	Val	Pro	Ala
				35					40					45
Met	Thr	Leu	Ala	Pro	Gly	His	Ala	Ala	Leu	Glu	Thr	Gln	Thr	Leu
				50					55					60
Ser	Ala	Glu	Thr	Ser	Ser	Arg	Ala	Ser	Thr	Pro	Ala	Gly	Pro	Ile
				65					70					75
Pro	Glu	Ala	Glu	Thr	Arg	Gly	Ala	Lys	Arg	Ile	Ser	Pro	Ala	Arg

80										85					90				
Glu	Thr	Arg	Ser	Phe	Thr	Lys	Thr	Ser	Pro	Asn	Phe	Met	Val	Leu					
				95					100					105					
Ile	Ala	Thr	Ser	Val	Glu	Thr	Ser	Ala	Ala	Ser	Gly	Ser	Pro	Glu					
				110					115					120					
Gly	Ala	Gly	Met	Thr	Thr	Val	Gln	Thr	Ile	Thr	Gly	Ser	Asp	Pro					
				125					130					135					
Glu	Glu	Ala	Ile	Phe	Asp	Thr	Leu	Cys	Thr	Asp	Asp	Ser	Ser	Glu					
				140					145					150					
Glu	Ala	Lys	Thr	Leu	Thr	Met	Asp	Ile	Leu	Thr	Leu	Ala	His	Thr					
				155					160					165					
Ser	Thr	Glu	Ala	Lys	Gly	Leu	Ser	Ser	Glu	Ser	Ser	Ala	Ser	Ser					
				170					175					180					
Asp	Gly	Pro	His	Pro	Val	Ile	Thr	Pro	Ser	Arg	Ala	Ser	Glu	Ser					
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Ser	Ala	Ser	Ser	Asp	Gly	Pro	His	Pro	Val	Ile	Thr	Pro	Ser	Arg					
				200					205					210					
Ala	Ser	Glu	Ser	Ser	Ala	Ser	Ser	Asp	Gly	Pro	His	Pro	Val	Ile					
				215					220					225					
Thr	Pro	Ser	Trp	Ser	Pro	Gly	Ser	Asp	Val	Thr	Leu	Leu	Ala	Glu					
				230					235					240					
Ala	Leu	Val	Thr	Val	Thr	Asn	Ile	Glu	Val	Ile	Asn	Cys	Ser	Ile					
				245					250					255					
Thr	Glu	Ile	Glu	Thr	Thr	Thr	Ser	Ser	Ile	Pro	Gly	Ala	Ser	Asp					
				260					265					270					
Ile	Asp	Leu	Ile	Pro	Thr	Glu	Gly	Val	Lys	Ala	Ser	Ser	Thr	Ser					
				275					280					285					
Asp	Pro	Pro	Ala	Leu	Pro	Asp	Ser	Thr	Glu	Ala	Lys	Pro	His	Ile					
				290					295					300					
Thr	Glu	Val	Thr	Ala	Ser	Ala	Glu	Thr	Leu	Ser	Thr	Ala	Gly	Thr					
				305					310					315					
Thr	Glu	Ser	Ala	Ala	Pro	His	Ala	Thr	Val	Gly	Thr	Pro	Leu	Pro					
				320					325					330					
Thr	Asn	Ser	Ala	Thr	Glu	Arg	Glu	Val	Thr	Ala	Pro	Gly	Ala	Thr					
				335					340					345					
Thr	Leu	Ser	Gly	Ala	Leu	Val	Thr	Val	Ser	Arg	Asn	Pro	Leu	Glu					
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<212> DNA
<213> Homo Sapien
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 ctcccagcta cggtggcagt tgcttctcca cataccacct cggctactcc 950
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 <212> PRT
 <213> Homo Sapien

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 35 40 45
 Ser Lys Gly Ile Arg Gly Asn Glu Pro Val Tyr Thr Ser Thr Gln
 50 55 60
 Glu Asp Cys Ile Asn Ser Cys Cys Ser Thr Lys Asn Ile Ser Gly
 65 70 75
 Asp Lys Ala Cys Asn Leu Met Ile Phe Asp Thr Arg Lys Thr Ala
 80 85 90
 Arg Gln Pro Asn Cys Tyr Leu Phe Phe Cys Pro Asn Glu Glu Ala
 95 100 105
 Cys Pro Leu Lys Pro Ala Lys Gly Leu Met Ser Tyr Arg Ile Ile
 110 115 120
 Thr Asp Phe Pro Ser Leu Thr Arg Asn Leu Pro Ser Gln Glu Leu
 125 130 135
 Pro Gln Glu Asp Ser Leu Leu His Gly Gln Phe Ser Gln Ala Val
 140 145 150
 Thr Pro Leu Ala His His His Thr Asp Tyr Ser Lys Pro Thr Asp
 155 160 165
 Ile Ser Trp Arg Asp Thr Leu Ser Gln Lys Phe Gly Ser Ser Asp
 170 175 180
 His Leu Glu Lys Leu Phe Lys Met Asp Glu Ala Ser Ala Gln Leu
 185 190 195
 Leu Ala Tyr Lys Glu Lys Gly His Ser Gln Ser Ser Gln Phe Ser
 200 205 210
 Ser Asp Gln Glu Ile Ala His Leu Leu Pro Glu Asn Val Ser Ala
 215 220 225
 Leu Pro Ala Thr Val Ala Val Ala Ser Pro His Thr Thr Ser Ala

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Val	Thr	Thr	Val	Thr 275	Ser	Gln	Pro	Pro	Thr 280	Thr	Leu	Ile	Ser	Thr 285	
Val	Phe	Thr	Arg	Ala 290	Ala	Ala	Thr	Leu	Gln 295	Ala	Met	Ala	Thr	Thr 300	
Ala	Val	Leu	Thr	Thr 305	Thr	Phe	Gln	Ala	Pro 310	Thr	Asp	Ser	Lys	Gly 315	
Ser	Leu	Glu	Thr	Ile 320	Pro	Phe	Thr	Glu	Ile 325	Ser	Asn	Leu	Thr	Leu 330	
Asn	Thr	Gly	Asn	Val 335	Tyr	Asn	Pro	Thr	Ala 340	Leu	Ser	Met	Ser	Asn 345	
Val	Glu	Ser	Ser	Thr 350	Met	Asn	Lys	Thr	Ala 355	Ser	Trp	Glu	Gly	Arg 360	
Glu	Ala	Ser	Pro	Gly 365	Ser	Ser	Ser	Gln	Gly 370	Ser	Val	Pro	Glu	Asn 375	
Gln	Tyr	Gly	Leu	Pro 380	Phe	Glu	Lys	Trp	Leu 385	Leu	Ile	Gly	Ser	Leu 390	
Leu	Phe	Gly	Val	Leu 395	Phe	Leu	Val	Ile	Gly 400	Leu	Val	Leu	Leu	Gly 405	
Arg	Ile	Leu	Ser	Glu 410	Ser	Leu	Arg	Arg	Lys 415	Arg	Tyr	Ser	Arg	Leu 420	
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<212> DNA
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06-07-2019

Ser Ala

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<220>
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<400> 522

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<210> 523

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<223> Synthetic oligonucleotide probe

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<400> 524

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<210> 525

<211> 25

<212> DNA

<213> Artificial Sequence

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<223> Synthetic oligonucleotide probe

<400> 525

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